CHANGES IN ALCOHOLICS' PERCEPTION OF THE SELF AND DRINKING ROLES, AS ASSESSED BY REPERTORY GRID TECHNIQUE

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ABSTRACT

The aim of the present study was to monitor, over time, in a group of alcoholics undergoing therapy in an inpatient treatment programme, changes in the way they saw themselves and certain drinking roles. The inter-relationships of such changes, selected social and demographic variables and drinking outcome after three months were also investigated.

Perceptions of the self and drinking roles were assessed by means of Repertory Grid Technique. Subjects completed a grid, comprised of ten supplied elements and ten elicited constructs, a week after admission and again before discharge.

Of the 24 subjects present at admission, follow-up information, in the form of questionnaires completed by subjects and/or referees, was obtained for 23.

Results showed that between admission and discharge, the majority of subjects came to identify more closely with socially approved drinking roles and less with socially disapproved roles.

Furthermore, socially less advantaged subjects appeared to identify less with socially approved drinking roles and more with socially disapproved roles at both admission and discharge.

Subjects who were abstinent after three months reported less alcohol related behavioural and physiological symptoms during the month preceding admission and also rated their drinking problem as less severe at admission. Furthermore, subjects who were later abstinent, on average,

identified more closely with socially approved drinking roles and less with socially disapproved roles than did subjects who later relapsed.

The need for replication of results using a larger sample and multivariate statistical techniques was acknowledged. However, it was suggested that the current findings may provide a simple but useful means of monitoring the response of some subjects to therapy, and also of understanding the mechanisms of alcoholic recovery or relapse. The importance of investigating cognitive variables in developing an understanding of the problem of alcoholism was stressed.

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CHAPTER

INTRODUCTION

The aim of this study is to monitor, over time, in a group of alcoholics undergoing treatment in an inpatient programme, changes in the way they construe themselves and certain drinking roles. Changes will be monitored by means of repertory grid technique. In addition the relationship between the size and direction of changes, demographic social and psychological subject variables shown to be relevant to prognosis, and post-treatment functioning, will be investigated.

Thus, the research design is of a longitudinal, correlational nature, which involves observation of relevant variables through time with a view to the identification of individual differences and their relation to different outcomes. This may be contrasted with the approach of traditional experimental psychology, characterised by active manipulation of one or two variables and a view of individual differences as "nuisance variables", detracting from the strength of the main effects, and which must be minimized [Kiesler, in Bergin and Garfield, 1971]. The view is held here that the playing down of individual differences precludes the development of a comprehensive understanding of the effects of therapy and of the relationship of such effects to outcome.

The variables to be monitored over time are cognitive. A considerable amount of recent research has highlighted the importance of the individual's perception of various aspects of his or her world in mediating, even determining,behaviour, but research from this view point in the field of alcoholism has been relatively sparse.

Thus, in the present study, the general questions being asked are: "How do a group of alcoholics see themselves, in relation to their drinking roles, at the beginning and end of therapy? What kinds of changes occur in which subgroups of individuals and furthermore, how do self perceptions relate to drinking outcome?"

The first chapter will review literature relating to changes in cognitive variables during alcoholism treatment and the relationship of these variables to drinking outcome. Research into other predictors of the post-treatment functioning of alcoholics will also be reviewed.

Chapter two is concerned with theoretical and methodological issues relating to repertory grid technique.

In chapter three, the specific hypotheses to be tested in this study are formulated, and the research design and methodology presented.

Chapters four and five present, respectively, the results and a discussion of the results in relation to the hypotheses and earlier findings.

CHAPTER I

Introduction

Researchers of alcoholism have devoted little attention to the investigation of the role of cognitive[1] variables in relation to an individual's participation in therapy and outcome. Yet there is evidence which suggests that such variables play an important role in determining behaviour. Failure to take account of them may therefore leave our understanding of the problem of alcoholism less complete than it would be otherwise.

This chapter reviews several areas within the "cognitive content" aspect of cognition, generally,and then as they relate to alcoholism. Thereafter the literature pertaining to other variables shown to be important in mediating alcoholic outcome will be reviewed.

However, before that, it is necessary to ascertain what is meant by the ubiquitous terms "alcoholism" and "alcoholic". Armor et al [1978] state that at present, the definition is surrounded in the literature by confusion, ambiguity and controversy which is more than mere semantic debate in that the definition used has significant consequences for research, treatment and public policy. Much of the controversy centres around

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[1] A distinction is drawn between two aspects of cognition: firstly, cognitive content, the 'what' rather than the 'how' of cognitive processing, including knowledge,beliefs, attitudes and personal constructs; and secondly, the form and structure of cognitive behaviour; the 'how' which emphasises different types of information processing [Abbott, 1979]. The present chapter is concerned with the former.

the physical disease model of alcoholism, its critics maintaining that such a concept takes inadequate account of the role of sociocultural factors in causing the problem, and moreover, perpetuates the idea that the patient may passively await a 'cure'.

Nevertheless, Armor et al [1978] state that there is a concensus in the literature as to the basic characteristics and manifestations of alcoholism once it is established, these being one or more of the following:

1) large quantities of alcohol consumed over a period of years,
2) physiological manifestations of ethanol addiction,
3) abnormal, chronic loss of control over drinking, and,
4) chronic damage to physical health and social standing from sustained alcohol abuse.

In practice, most of the studies to be discussed in the present chapter use inpatient status in an alcoholism treatment programme as their criterion for subject selection. Individuals at all stages of their drinking problems are thereby included, and the difficulty of drawing comparisons between studies, in the absence of more rigorous criteria, is evident. There is, therefore, a need in much current research, to define more clearly the subject populations used so that sub-groups may be identified and relevant comparisons made between studies.

The Role of Cognitive Variables in Determining Behaviour

Since the mid-60's, there has been an explicit shift to cognitive and information processing models of behaviour change, ushered in by Bandura's [1969] claim that the basic processes of behaviour change involve central (cognitive symbolic) mechanisms [Mahoney and Arnkoff in Garfield and Bergin 1978]. At present, the cognitive learning perspective is a diversified amalgam of principles and procedures that have in common the tenets that:

1) humans develop adaptive and maladaptive behaviour and affective patterns through cognitive processes and therefore deficient or maladaptive cognitions are partly responsible for aberrant affect behaviour.
2) alteration of cognitive processes is a prerequisite for (or facilitator of) therapeutic improvement [Mahoney, 1977].

The implication is, therefore, that cognitive processes play a causal role in behaviour.

These assumptions are embodied in the "cognitive restructuring" therapies of Ellis [1962], Meichenbaum [1974] and Beck [1970, 1976], all of which attempt to change maladaptive behaviour and feelings by changing maladaptive thoughts. Mahoney and Arnkoff (ibid) cite a relatively large number of well controlled studies that document the potential efficacy of these therapies.

Bandura [1978] proposes a similar analysis of the role of cognitive variables in determining behaviour, one which, once again, assumes an interaction between cognitive content and behaviour. Specifically Bandura suggests that all psychological procedures alter the level and strength of self efficacy, the conviction that one can successfully execute the behaviour required to produce outcomes. Such expectations affect the initiation and persistence of coping behaviour, and therefore are a major determinant of behaviour. Some confirmatory evidence has accrued [Bandura and Adams, 1977] though the theory has also received some criticism due to the difficulty of falsifying it and its narrow data base [Lang, 1978] which suggest that additional research is needed [Kazdin, 1978] or a new theory.

Cognitive behaviour theories are a relatively recent development. However, conceptual aspects of cognitions took a central position in Kelly's Psychology of Personal Constructs [1955]. Kelly maintains that each of us, out of a fundamental need to understand the world, creates and tests hypotheses about the significant behaviour of others and in turn, behaviour is determined by our idiosyncratic hypotheses. Mischel [1973] suggests that in attempting to understand the individuals behaviour, the individuals hypotheses (constructs) must be assessed.

This very brief sampling of relevant literature highlights the view that it is important to assess cognitive content variables in gaining an understanding of human behaviour.

Cognitive Content Variables in Alcoholism Research

Research into cognitive content variables may be seen then, as investigating the individuals view of the self and his or her world. Beckman [1980] suggests that the situation as it relates to alcoholism may be as follows: as belief precedes action, belief structures can maintain excessive drinking and therefore changes in beliefs and attitudes can result in changes in behaviour.

In the field of alcoholism, much of the relevant research may be subdivided into several sections,including self esteem and other aspects of self concept, and locus of control or the extent to which the individual feels he or she controls the world or is controlled by it. Each of these areas will be outlined and, where relevant, reference will be made to studies from other research areas.

1) Self Esteem and Self Concept

The self esteem of alcoholics and the manner in which it changes during therapy has been widely studied. In such studies, self esteem is rarely explicitly defined but generally appears to refer to "a persons own evaluation of his or her own value, worthiness, adequacy and competence" [Spence, 1980, p. 265]. Charalampous, Ford and Skinner [1976] define self esteem as one aspect of self concept, the continuum of positive versus negative feelings. Self esteem is held by these authors and others [Beckman, 1978; Pushkash and Quereshi 1980] to affect behaviour via a feedback loop, whereby a person with low self esteem can be expected to behave in ways consistent with such a low self concept, and consequently exhibit more ineffectual behaviour. Observations of his own ineffectiveness in turn maintain low self esteem. If this is the case then it is suggested that it is crucial that therapy break the loop by increasing self esteem [Gross and Adler, 1970; Beckman, 1978].

Litman, Eiser, Rawson and Oppenheim [1979] propose a similar model of relapse which hypothesizes an interaction among (i) situations viewed as dangerous for the individual (ii) the availability of coping strategies for dealing with these situations (iii) the effectiveness of coping strategies and (iv) the individuals self perception, self esteem and degree of learned helplessness with which he views the situation, which determines the likelihood that appropriate and effective action will be taken to avoid relapse.

Charalompous et al [1976] tested and confirmed the hypothesis that alcoholics do, in fact, have low self esteem (using the Rosenberg 10-item scale).

Other authors also have found that alcoholics have poorer self esteem than nonalcoholics [Vanderpool, 1969; Felde, 1973; Clarke, 1974; Quereshi and Soat, 1976; MacLachlan 1980]. Furthermore, the self esteem of women alcoholics before therapy has been consistently found to be lower than that of men [Kinsey, 1966; Lisansky, 1971; Burtle, Whitlock and Franks, 1974; Beckman, 1978; MacLachlan, Walderman, Birchmore and Marsden, 1979; Curlee, 1980;Pushkash and Quereshi 1980]. Litman [1977] suggests that this is because there is much more likelihood of moral judgements being made about women who drink excessively than about men who drink excessively.

Waller and Lorch [1978] found that both male and female alcoholics saw the most problematic aspects of their drinking to be its effects on self esteem, self respect and sense of identity.

However, these findings are not universally confirmed: e.g. McCourt and Glanz [1980] found that some alcoholics have an unrealistically high sense of self esteem and Tarbox [1979] found that the self esteem and sense of competence of first admission patients did not differ from that of non-alcoholics. He suggested that such patients were trying to cope with their failures by an unrealistic display of self confidence and inability to accept negative feedback.

This may in fact be prognostic; Charalampous et al [1976] found that alcoholics with lower self esteem were more willing to seek treatment than those with higher self esteem. Beckman [1978] suggests that as people with low self esteem are more susceptible to social influence, they may be better candidates for psychotherapy than those with a sense of self worth.

Several studies have found that treatment had a slight to moderate effect on the self concept (used here in a broader sense than self esteem) of alcoholics, e.g. Felde [1973] assessed by means of the Tennessee Self Concept Scale, changes produced by group therapy. This scale is comprised of ten subscales - self criticism, total positive, identity, self satisfaction, behaviour, physical self, moral-ethical self, personal self, family and social self - each of which, in a sense, measures an aspect of 'self esteem'. The physical self evaluation changed most and changes in other scales were small.

Tomsovic [1976], again using the TSC scale, found different changes occurred in different types of therapy group: statistically significant changes were noted on most subscales for a closed therapy group, but on only Physical Self for the open group. These results are confounded by time spent in treatment, but nonetheless emphasise that generalisations about changes over 'therapy' (viewed as a unitary concept) in 'alcoholics' are likely to yield rather simplistic descriptions of response to therapy.

O'Leary, Chaney and Hudgins [1978] using the TSC scale found significant improvements in four subscales during treatment, and suggested also that differences within the alcoholic population as well as variations in the treatment process between programmes may be related to different effects of treatment on self concept - e.g. disease-oriented treatment programmes may have different effects than those that stress psychological theories of addiction. These authors recommend that identification of such factors is important for maximizing self concept gains in treatment. O'Leary et al provided one of the few attempts to predict treatment outcome classification from pretreatment self concept

scores. However, scores from early dropouts, late dropouts and programme completers were not significantly different.

On the other hand, Miller et al [1968] and Wilkinson et al [1971] reported that dropouts of alcoholic treatment programmes had less self esteem than programme completers [in Bækeland and Lundwall, 1975].

Heather et al [1975] using the Repertory Grid found that "actual self" and "ideal self" were construed as more similar by patients at the end than at the beginning of therapy, suggesting that an increase in self esteem had occurred. However, such changes in 'self'related constructs were unrelated to positive outcome; in fact, large changes were more predictive of unsuccessful outcome. This pattern was predicted by Morris [1974] and Ryle and Breen [1969a] in a nonalcoholic sample. Book [1976] suggested, but did not test the hypothesis, that extreme change in a short treatment programme may reflect impulsive movement on the part of some patients, representing what Kelly [1955] described as the foreshortening of the circumspection phase of the "Circumspection-Preemption-Control Cycle" involved in construct change.

In most of these studies, no control was provided for length of abstinence, so it is often not possible to attribute changes in self esteem to the effects of therapy. Beckman [1978] in fact found that the self esteem of both male and female alcoholics continued to increase with length of time abstinent. White and Porter [1966] found that alcoholics negative self esteem decreased with length of abstinence. Kurtives, Ball and Wood [1978] found that 'newly recovered' alcoholics (i.e. those abstinent for less than 4 months) had lower self esteem and greater feelings of self blame than alcoholics who had been abstinent for four years, suggesting that self esteem continues to increase with abstinence regardless of whether the individual remains in therapy.

However, findings of other authors highlight the precarious nature of therapy-related changes in self esteem after discharge, e.g. Burtle, Whitlock and Franks [1974] found that a sample of women alcoholics had made significant gains in most scales of the TSC scale at the end of treatment but that these were eradicated after 16 weeks in the community. These authors interpret the results as demonstrating the power of society over deviant women; gains in self esteem were not able to be maintained in the face of stigmatisation. Changes in self esteem alone may be necessary, but are unlikely to be sufficient conditions of alcoholic recovery.

Spence and Spence [1980] discussed the importance of increasing both self esteem and locus of control in a group of adolescent offenders, in order to provide a buffer against re-entering the cycle of persistent offending. While changes in the desired directions occurred during therapy (social skills training) they were short-lived after discharge.

In sum then; evidence consistently suggests that both male and female alcoholics have very low sense of self esteem, that of women being lower than that of men. It also appears that "therapy" (or a period of abstinence) results in a moderate increase in self esteem, though the precise nature and extent of the change no doubt depends on the population sampled and therapy programme investigated. Little attempt has been made to elucidate this issue.

Some evidence suggests that changes may be short-lived - once again in whom is, as yet, unknown.

The crucial question of the relationships between changes in self esteem and outcome has been scarcely investigated, though it may be that large changes are associated with poorer outcome, and low self esteem with dropping out of treatment.

2) The Self and its Roles

Several writers have conceptualised the alcoholics 'self concept' in terms of the relationship between the self and drink-related roles.

Thus Pennock and Poudrier [1978], acknowledging the importance of both a sense of self worth and acceptance of the problem to the alcoholics subsequent adaptation, proposed the following analysis; most traditional treatments implicitly attempt to assist the alcoholic to overcome denial by making 'self' more negative; according to cognitive dissonance theory, the equating of 'self' with 'alcoholic' is inconsistent, will produce dissonance and denial will result. The implicit assumption is that denial is associated with relapse. Treatment should aim at integrating these concepts by bringing about a positive shift in the evaluation of 'alcoholic' and a dualism on the 'self' concept, with the result that 'high' or ' drunken' self becomes evaluated like 'alcoholic', while a positive self image (sober self) is retained. Pennock and Pondrier found that an 11 week educational programme for drunken drivers resulted in more positive evaluations of alcoholics, but no change in self concept - a finding opposite to several of those previously cited.

However, the study is not a valid test of the hypothesis in that subjects were not alcoholic as defined above, and were therefore unlikely to see themselves as such.

Furthermore, both a priori assumptions - that treatment programmes attempt to make the 'self' concept more negative, and that denial is associated with worse outcome - are questionable. In the case of the former, Alcoholics Anonymous oriented programmes may, in fact, be seen to aim at making the 'alcoholic' appear more positive and thereby also the 'self'.

No test of the relationship between changes and outcome was undertaken by Pennock and Pondrier.

Partington [1970] presents a similar analysis: using a multi-dimensional scaling model, he found a dualism developing in the self concept of alcoholics between "high self" construed negatively, and sober self, conceived of in positive terms. Therefore, dissonance was reduced without changing either the "self" or "alcoholic" concept, but by adding a third cognition which made the cognitive system more consistent. Partington suggests that treatment should aim at helping alcoholics understand this dualism, reasoning that "as long as alcoholics can hypostatize their high self image they will be handicapped in understanding their own behaviour". In other words, Partington appears to construe this dualism as undesirable. However, given the findings cited above which suggest that many alcoholics have very low self esteem, then such a method of increasing self esteem whilst maintaining awareness of the alcohol problem would seem to be an appropriate way of overcoming denial. Nevertheless, no test of the effects of such changes on outcome - the ultimate test of their desirability as treatment goals - was undertaken by Partington.

These authors are proposing then, that during therapy, the alcoholic must come to see himself as such whilst maintaining a moderately high level of self esteem. The implicit assumption in such formulations - which is untested - is that such changes are necessary conditions for successful outcome.

Several other studies have addressed themselves to the issue of the drinking related role with which the alcoholic patient appears to identify most.

For example, Hoy [1973] found that a group of alcoholics undergoing therapy on the grounds that they wished to abstain had stereotyped views of 'alcoholic' as weak, lonely and unhappy, but did not see themselves as such. Hoy, like the above authors, suggests that in order for successful outcome to occur, there is a need to integrate the perception of the self and its behaviour. He does not test this suggestion, though Fransella [1966] has provided confirmatory evidence with stutterers.

Richard and Burley [1978] using the Semantic Differential with alcoholics found that the psychological distance between "myself" and "controlled drinker" was less than that between "myself" and "total abstainer". They suggest that in being forced to become abstinent, some alcoholics may have to play a role which creates conflict, and hence impairs functioning, and conclude that controlled drinking may be a worthwhile goal for some. They suggest that it is important to find out alcoholics' attitudes because firstly, such attitudes may preclude the adoption of one role, and secondly, it may be necessary to alter an individual's beliefs about a role if treatment is not to be hindered.

Once again, then, the point is stressed that the individuals perceptions of his or her drink-related role may either facilitate or preclude successful outcome, but the assertion remains untested.

Kilpatrick et al [1978] acknowledging the importance of the individuals self and role-related perceptions in outcome, suggested that alcoholics should be matched to treatment programmes most appropriate to their particular needs and goals. Asking the client might be a necessary but not sufficient condition for assignment of treatment, however, in that some clients obviously deny the extent of their problem and select controlled drinking. With these variables in mind, the authors assessed a sample of 157 male alcoholics and found that

"spurious" treatment candidates exhibited less subjective emotional distress on self report tests than did alcoholics motivated for treatment.

This finding is reminiscent of those previously cited - that "too much" change in self esteem, seeing oneself "too" favourably, and possibly denying one's problems, may be prognostic of poor outcome.

The study by Heather, Edwards and Hore [1975] previously cited, investigated in a group of 40 alcoholics undergoing inpatient therapy, changes in the way they saw themselves in relation to drinking roles. Such changes were then related to post-treatment outcome. As this study is to be partially replicated in this research, it will be discussed in more detail than the above studies.

Specifically, Heather et al used Repertory Grid technique to assess the changes in the way patients construed themselves over therapy. Inter-relationships between ten 'elements' were examined, at admission, again at discharge, and changes. Elements used were: the ideal self, actual self, past self, future self and social self; and a typical alcoholic a recovered alcoholic, an average social drinker, a teetotaler, and an alcoholic who doesn't benefit from treatment.

Relationships were investigated between changes in element distances and several variables previously found to be relevant to prognosis viz. age, social class, social stability, IQ, sex, psychopathic deviance, and length of stay in the alcoholism unit.

Results showed that firstly, all significant changes related to self perception, whereas construal of drinking roles remained relatively constant and secondly, three element distances at discharge were significantly

related to outcome at 6 months. This implied that abstinent patients distinguished less than others between the roles "typical alcoholic" and "nonbenefitting alcoholic", whereas patients who relapsed distinguished more between these two roles and less between "average social drinker" and the two alcoholic roles at discharge. In other words, patients who did well were those who distinguished less between different types of alcoholic, but more between alcoholics as a class and other types of drinker.

Furthermore, results showed that patients who showed large changes toward self respect and therefore may have been tempted to take on the role of social drinker, and those who showed that they had come to see themselves as alcoholics who do not benefit from treatment, were both more likely to relapse than other patients. Heather et al suggest that the former type of patient is probably familiar to workers in the field as one who is overconfident of his or her abilities. They argue that relapse in some of these cases is a consequence of the disease concept of alcoholism. If the alcoholic sees him or herself as having a disease, then he may also see himself as "cured" and respectable, so the temptation to return to social drinking is great. Alcoholics Anonymous in fact attempts to avoid this problem by talking of the "recovering alcoholic" as one who is never cured. In this way, then, seeing onself as "recovered", feeling very good about oneself,may result in resumed drinking.

Heather et al's study may be criticised;for example,as there is no control group, the effect of therapy in bringing about changes in construing is confounded by length of abstinence.

Furthermore, the multi-stage procedure used to analyse results renders dubious the meaning, in psychological terms, of the final results.

However, it is one of the aims of the present study to attempt to replicate some of these results.

In sum then, while many writers have stressed the need to integrate concepts of the self and its behaviour as a necessary condition for successful outcome, the only controlled study, which itself is open to question, suggests that it is not perceptions of the self but of other drinkers which are important.

Conclusions

While writers have consistently found alcoholics to have lower self esteem than nonalcoholics, little effort has been made to identify the relationship of this with outcome. Some evidence suggests that high self esteem may be associated with denial and poorer outcome.

The literature concerning the alcoholic's perception of drinking roles is rife with untested assertions to the effect that the alcoholic must see himself as such, whilst maintaining a moderately high level of self esteem, in order to have a favourable outcome. Heather et als [1975] study suggests that it is the alcoholic's distinguishing between alcoholic and social drinking roles which is associated with success - though results of this study also are open to question.

Some literature suggests that patterns of change during therapy are dependent on the population of alcoholics and the nature of therapy. This appears sensible: for example, in a programme which teaches controlled social drinking, the alcoholic would be unlikely to come to see himself as a recovering alcoholic. Meehl [1978] clearly states this point in his discussion of the nature of research in psychology.

"In heading this section 'Context - Dependent Stochastologicals', I mean to emphasise the aspect of this problem that seems to me most frustrating in our theoretical interests, namely, that the statistical dependencies we observe are always somewhat, and often strongly, dependent on the institution-cum-population settings in which the measurements were obtained".

The need to describe the populations used in each study and to identify, as suggested by Kiesler [1966] "who responds to what in which way" is evident.

3) Locus of Control and Drinking-Related Locus of Control

As this concept is only tangentially relevant to the present thesis, the literature review will briefly outline main findings. This task is greatly assisted by Abbott's [1979] review of the literature.

The concept of Locus of Control of reinforcement was devised by Rotter [1966] as a measure of the extent to which an individual believes that reinforcements of his life are under his control and are contingent in his behaviour (internal locus of control) as opposed to believing that reinforcements are not under his control and are not contingent on his behaviour (external locus of control) [Houston, in Mischel, 1973]. The I-E scale was devised by Rotter to operationalise his construct.

Evidently such a concept, initially, would seem to be particularly relevant to the field of alcoholism in view of the inability that alcoholics have in controlling their drinking and in coping effectively in other life areas. However, it is also evident that it is not so straightforward - in part because alcoholics often believe that they can control their drinking in spite of evidence to the contrary [Abbott, 1979]. In fact, having reviewed relevant literature, Abbott (p. 185) concludes:

> "Although the locus of control construct appears to have relevance to the treatment and understanding of alcoholism, although a large number of speculations have been made regarding possible relationships, and although over 30 studies have been conducted, very little can be concluded..... From the confused findings.....it is not even clear how relevant locus of control is to alcoholism."

Abbott's own study investigated in 106 chronic alcoholics undergoing inpatient treatment, the role of cognitive dysfunction and other psychological processes in mediating outcome. Results pertaining to locus of control showed firstly, a significant shift in the internal direction on the IE scale over the course of treatment, but secondly that locus of control on its own was of little prognostic value.

The finding of limited prognostic relevance of generalised locus of control may not be surprising. As Abbott points out, locus of control was not intended to be a precise predictor of behaviour in a given situation, but rather to provide a low degree of prediction over a wide range of situations. Furthermore, generalised locus of control would be expected to operate in ambiguous situations, rather than those in which the individual has specific expectancies. Since alcoholics have considerable experience with drinking situations, more specific expectancies could be of greater importance in influencing behaviour relating to alcohol use.

For these reasons, the Drinking Related Locus of Control Scale (DRIE) was developed [Keyson and Janda, in Abbott, 1979], representing a translation of generalized locus of control into specific locus of control with regard to drinking. Alcoholics who are external on the DRIE scale see outcome of important life events as beyond their control, and see themselves as having little control over inter and intra-personal sources of stress. They also claim to experience more depressive symptoms, and to be more self critical, and to have difficulties in social skills [Donovan and O'Leary in Abbott, 1979].

Donovan and O'Leary also found DRIE externals to differ from DRIE internals in severity of alcohol related - the former having the more severe problems.

Abbott (ibid) found that DRIE scores become more internal over the course of inpatient treatment: the majority of patients came to believe that they were able more to control their drinking than they had believed at admission.

Furthermore, drinking related locus of control fared considerably better as a predictor of outcome than did generalized locus of control. An interaction was found between DRIE scores and cognitive dysfunction: alcoholics who were internal or intermediate scorers on the DRIE scale near the end of the treatment period, and who were also intact cognitively tended to have a better prognosis than external scorers. In other words, Abbott's findings suggested that in the case of the more neuropsychologically intact subjects, self evaluations of the amount of control they consider they will have over their drinking tends to be bourne out in post hospital behaviour. Self evaluations by cognitively impaired individuals are less likely to be accurate.

Abbott concludes that drinking-related locus of control appears to be particularly fruitful as a predictor of outcome.

Once again, the importance of the individual's perceptions of his or her situation is shown to be particularly relevant in mediating outcome. Drinking-related locus of control is similar in concept to Bandura's 'self efficacy' expectation, mentioned previously. Both emphasise the individual's conviction that the behaviour required to produce outcomes can be successfully executed. Both also, have some research backing,

though more is required. Evidently, such conviction is not both a necessary and sufficient condition for successful outcome - Abbott has shown that it applies only for cognitively intact individuals, for example, and other possibly influential variables should be identified.

4) Other Cognitive Content Variables

Abbott's comprehensive [1979] study included several other cognitive content variables, and found that the strongest and most consistent predictor of outcome across all analyses (apart from PCIT and BRFT[1]) was the patients' self rating of severity of their drinking problem, a rating of less severity being associated with better outcome. Abbott continues:

> "It is somewhat humbling to recognise that the patient's assessment of his or her own situation fares so well as a predictor alongside sophisticated psychological assessment backed by computer technology. It may be that there are gains to be made from a greater concentration on alcoholics views of their situations." (p.345)

Both religiosity (measured by the Questionnaire on religion) and temporal orientation were minor contributors, but not dominant predictors of treatment outcome.

Predictors of Treatment Outcome

A considerable amount of research has been directed towards identifying predictors of treatment outcome for alcoholics. One of the major issues in longitudinal studies of alcoholic patients is assessing the relative importance of patient background variables and treatment programmes in determining outcome [Cronkite and Moos, 1978].

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[1] tests of neuropsychological impairment "Patterned Cognitive Impairment Test" and "Booklet Rod and Frame Test"

a) Patient Intake Variables: The importance of sociodemographic social-stability and drinking related variables at intake has been consistently found. For example, Gibbs and Flanagan [1978] reviewed 45 outcome studies and found that some personal characteristics were more predictive than others. These were: diagnosis of psychoneurosis, higher Arithmetic score (WAIS), married or cohabitating, higher status occupation, employed at time of admission, history of AA contact prior to admission and higher social class.

Smart [1978] studied 1091 alcoholics treated in a variety of treatment services and followed up after one year. A variety of patient characteristics were found to be important in predicting outcome, the most important being those associated with alcoholic symptoms and the patient's personal resources.

Armor, Polich and Stambul [1978] conducted a comprehensive outcome study, utilising data from nearly 30,000 clients in 44 treatment centres throughout the U.S.A. They found firstly, that approximately 70 per cent of clients showed improvement for outcomes most closely tied to the alcoholism syndrome and secondly, that symptom severity at intake, social instability at intake (which included residential, job and marital status) and socioeconomic status, were the strongest correlates of treatment success. Severity of alcoholic symptoms had slightly larger effects on remission than socioeconomic status and social stability. Thus, for stable clients of high socioeconomic status, with less definite symptoms of alcoholism, the remission rate was 90 per cent, whereas for unstable clients of low socioeconomic status, and definite alcoholic symptoms, it was 51 per cent.

However, combined, these symptoms still only accounted for less than 10 per cent of the total outcome variance.

A research project by Bromet, Moos, Cronkite and colleagues investigated interrelationships between various intake variables, and treatment and post treatment variables and outcome, in a sample of 429 patients selected from five different treatment programmes.

Results pertaining to patient characteristics indicated that both social background variables (age, sex, marital status, ethnic group, education) and intake alcohol-related symptoms were relatively strong predictors of outcome at 6 months, though the importance of one relative to the other varied with the outcome criteria being used. [Cronkite and Moos, 1978; Bromet, Moos, Bliss and Wuthmann, 1977] found that patients sociodemographic and drinking characteristics at intake explained 15-33 per cent of the variance of several posthospital performance criteria.

Finney and Moos [1979] also found that patients who were better off at intake also exhibited more positive functioning at follow-up.

Abbott [1979], in his study of 106 NZ alcoholics, found that measures from both sociodemographic and intake symptoms categories were amongst the strongest predictors of drinking outcome; higher levels of education, socioeconomic status and married vs not married emerged as significant predictors. However, these were not the strongest predictors of outcome: as cited previously, scores on two measures of cognitive dysfunction (Patterned Cognitive Impairment Test (PCIT) and Booklet Rod and Frame Test (BRF)) were dominant predictors, suggesting that these cognitive variables play an important role in mediating outcome. Furthermore, as also mentioned previously, the subject's own rating of the severity of the

drinking problem was a stronger and more consistent predictor of outcome than intake characteristics. Abbott (p. 326) suggests that the failure of other studies to build stronger predictive models of outcome has, in part, stemmed from a failure to include measures of cognitive dysfunction, and cognitive 'content'.

Thus, it is evident that subject characteristics such as social stability, socioeconomic status, severity of alcohol symptoms and cognitive dysfunction mediate outcome.

Nonetheless, together they account for a minor proportion of total outcome variance.

b) Treatment Variables: Several studies have suggested that treatment programmes play little part in mediating outcome once socio-demographic and functioning characteristics at intake are taken into account. (Bromet et al [1977], Armor, Polich and Stambul [1978], Smart [1978].)

However, Bromet et al [1977] suggest that consistent results have been obscured by methodological problems such as failure to control for differences in patient background characteristics between the programmes compared.

Cronkite and Moos [1978] estimated the relative importance of various sets of predictors by using path analysis and partitioning the explained variance. Results showed programme variables to have as much explanatory power as patient related variables. Furthermore, between 23-40 per cent of the total explained variance was shared between patient related and programme related variables.

Nonetheless, even though 18 to 27 per cent of outcome variance was accounted for by these authors, the study of Abbott [1979] which employed a less comprehensive set of predictors but included cognitive measures accounted for 38 per cent of overall variance in treatment outcome.

c) Post treatment Experiences: Finney, Moos, Mewborn [1980], acknowledging the fact that most variance in treatment outcome remains unexplained, investigated the role of environmental resources in the post treatment adjustment (drinking, psychological and social functioning) of alcoholic patients previously treated in residential programmes.

Results indicated that even after patient background characteristics and intake functioning were controlled, there were a number of significant relationships bewteen posthospitalization factors and treatment outcome. For example, the more cohesive and supportive the family, the better the prognosis; and experiencing a larger number of negative life events was related to poorer outcome for patients.

Bromet and Moos [1977] found that for patients who did not reside with families after treatment, work environment dimensions were significantly associated with treatment outcome. Finney et al [1980] hypothesise that location in a family may insulate the patient from the effects of his or her work situation, as well as neutralizing the impact of other non-family related post treatment experiences - such as aftercare services and some life events. Stronger relationships may therefore be found between such factors and outcome within a sample living alone.

Evidently, it is difficult to say which comes first: e.g. family relationships may be poor because of drinking or vice versa. These authors suggest, however, that therapeutic efforts must go beyond the patient to deal with contexts in which he or she functions after treatment.

In sum then: this brief review highlights the extent to which outcome for the alcoholic individual is mediated by many complex, interacting variables. However, the basic finding appears to be that the better the level of the patient's functioning at intake (in terms of sociodemographic status, social stability, drinking behaviour, cognitive dysfunction), the more he or she participates in treatment, and the more post treatment environmental resources available, the more favourable the outcome.

As regards the role of cognitive content variables in outcome, Abbott's findings, cited above, suggest that the same basic rule may apply: at discharge, the more control the relatively cognitively intact individual sees him or herself as having over drinking, and the less severe the problem is rated at admission, the better the outcome. However, findings in relation to self concept and perception of roles are unclear.

As was mentioned previously, it is the aim of this study to investigate changes in these variables during the course of inpatient treatment, and to attempt to identify the relationships of such changes with several of the variables shown in this review, to be relevant to prognosis.

Since the Repertory Grid is the technique by which changes will be assessed, it will be discussed in the following chapter.

CHAPTER II

THE REPERTORY GRID

Introduction

> When George A. Kelly turned his hand to theorizing about human nature, he abandoned time-honoured concepts like motivation, drive, the unconscious, emotion and reinforcement. Instead, Kelly saw each individual to be like himself, a unique theorist of human nature. The person is a personality scientist who devises and tests predictions about the behaviour of significant people in his life. In Kelly's view, each of us constructs anticipations of others behaviour on a what-for-who basis: what makes some whos similar, and what makes them different? Consequently an individual who came to Kelly for counselling would be asked to make explicit his private personality theory. He would complete one or more versions of Kelly's Role Construct Repertory Test to provide some indication of how he construed important people in his life.
>
> [Monte, 1977, p. 311]

In other words, Kelly's Personal Construct Theory construes each individual, in his or her need to make sense of the world, as inventing and reinventing an implicit theoretical framework, which is his or her personal construct system. Each person has many interlinked subsystems to deal with different aspects of the environment. Such systems are not formal and articulated, and may be verbal or preverbal, easily testable or very tangled, loosely or tightly structured [Fransella and Bannister, 1977]. Furthermore, inasmuch as each individual is unique, each set of systems is also unique in very many respects, though of course the private universes or systems of different individuals have many similarities in content and structure, due to a common sensory and cognitive system, and a fund of common knowledge that has been accumulating for thousands of years [Slater, 1977].

Repertory Grid technique is a way of exploring the structure and content of such implicit theories; a way of exploring systems of constructs. The construct is the fundamental "unit of analysis" of the system. Kelly [1955, 1969 in Fransella and Bannister, 1977] argued that it would be useful to see personal construct systems as made up of hierarchically linked sets of bipolar constructs, or ways of describing objects, people and events (called elements). However, Fransella and Bannister (ibid) warn that we should never assume that a construct is the same as its verbal label, for a construct is a discrimination, not verbal label. It is only the difficulties of exploring construct systems that force us to focus more heavily on verbalised and easily accessible constructs.

Thus, constructs are used to evaluate elements. The repertory can therefore be represented by a matrix, where each column-row intersect contains an evaluation of that element by the construct. This comprises the Repertory Grid, which is regarded as representing the individuals phenomenological construction of his or her environment [Scarr, 1972].

The Grid and Personal Construct Theory

As Slater [1977] points out, grid technique and Kelly's theory are not indispensible to each other. The theory can be formulated without reference to the technique and conversely, grids are obtainable without depending on the theory (use of the grid in this way is referred to by Chetwynd [1974] as 'generalised grid technique'). However, there is an intimate connection between the two, in that the theory explains the technique [Slater, ibid. Fransella and Bannister, ibid.]; in fact, Fransella and Bannister state that many psychologists who use the grid find themselves assuming many of the assumptions of Personal Construct Theory, even though they are ignorant of the theory as such. For example,

use of grid technique implies an acceptance of both a view of men and women as actively defining their worlds, and of a shift in the focus of interest from the interpersonal to the intrapersonal. In other words, aspects of the theory pertaining to grids may be accepted both theoretically and pragmatically for this purpose by those who do not find it entirely satisfactory. A brief outline of major assumptions of PCT is found in Appendix 1 .

Grid Technique in Practice

Grid technique has a multitude of forms and therefore, there is considerable flexibility in the construction of a grid. Because of this, it is difficult to lay down definite rules to be followed. Nonetheless, there are several issues which must be considered by anyone using the technique, and these will be outlined in the following section. As Slater (ibid) points out, however, the task of constructing a grid should not be approached until communication between clinician and client is well established and he or she is familiar with the patients language; plenty of background information should be collected before constructing and administering the grid.

a) Numbers of constructs and elements: Chetwynd [1974] found that it was unnecessary to elicit large numbers of constructs from a subject when using grid technique - in fact, after seven had been elicited each additional construct made little difference to the element distribution. However, the number of constructs required increased with the number of elements used.

Slater [1977] recommends that if a grid is to sustain idiographic conclusions independently of other sources of information, it should contain enough data to allow comparisons between different parts of it. At minimum a 10x10 grid should therefore be constructed, he suggests.

b) Choosing elements: Elements are chosen to represent the area in which construing is to be investigated [Fransella and Bannister, ibid]. Kelly proposed twenty-four role titles representing a sample of people known by the client, appropriate if the area to be assessed is interpersonal relationships. However, the grid designer can modify these depending on the requirements of the situation.

Fransella and Bannister [ibid, p. 13] outline two criteria to be considered when selecting elements: firstly, the elements must be within the range of convenience of the constructs to be used - in other words must be applicable to the elements; secondly, the elements must be representative of the pool from which they are drawn. "If the test is to indicate how the subject develops his role in the light of his understanding of other people, it is necessary that the other people appearing as elements in the test be sufficiently representative of all the people with whom the subject must relate his self construed role" [Kelly 1955, in Fransella and Bannister, ibid, p. 13].

c) Choosing constructs: Kelly [1955, in Fransella and Bannister, ibid] outlined six criteria to be followed in the elecitation of constructs:

i) constructs should be permeable - i.e. have wider application than the elements used to elicit them,

ii) constructs should have some degree of permanence,

iii) the verbal labels attached to constructs should be communicable - the examiner should have some understanding of his or her clients meaning,

iv) constructs should represent the subjects understanding of the way other people look at things,

v) the subject must be able to see him or herself somewhere along the construct dimensions,

vi) constructs should be explicitly bipolar. Slater (ibid) also suggests that constructs should diverge in content.

In some instances it may be difficult for the clinician to judge whether these criteria are fulfilled or not: the decision is evidently one which must be made jointly by clinician and client. Kelly, following Hunt, 1951[in Bannister and Mair, 1968] suggests that certain other types of construct may need to be modified, viz. excessively permeable and impermeable constructs, situational, superficial and vague constructs.

Such constructs are apparently unsuitable because their range of convenience is either too broad or too narrow; they either fail to apply to all elements, or show marked contrasts between some elements and others [Slater, ibid]. Once again consultation with the client is the best way of determining whether criteria are fulfilled.

Several methods are available for eliciting constructs. Kelly advocated using triads of elements, and asking the client to specify some way in which two of them are alike and different from the third. However, this method may be too abstract for some populations [Heather et al, 1975] so two elements are often used [Bannister and Fransella, ibid]. Hinkle [1965, in Bannister and Mair, ibid] advocates the use of a procedure called "laddering" for eliciting constructs of a higher order of abstraction than those elicited by other methods. Subjects were required to indicate by which pole of the elicited construct they would prefer to be described, then asked to present reasons for this choice The reason given is another, more abstract construct. This procedure is repeated until the person is unable to produce more. Slater (ibid)

concludes that while the theory that construct systems are hierarchical is questionable, laddering and probing may be used to great advantage in grid technique.

Other means of eliciting constructs are available (see Fransella and Bannister) but those cited above appear to be the most widely used.

A considerable literature has addressed itself to the issue of whether constructs should be supplied by the clinician or elicited from the client. Evidently the latter procedure is more in keeping with the nature of Personal Construct Theory, though at times the providing of constructs is quite justified. Chetwynd [1974] states that supplying constructs greatly facilitates experimentation and direct comparisons can be made between different subject's grids. The disadvantage lies in the risk of supplying the subject with a false construct system.

Research shows, not surprisingly, that clients prefer to use their own constructs [Fager, 1954, Bonarius 1965, in Chetwynd, 1974]. Furthermore, subjects respond more extremely on personal constructs than provided scales when rating the same set of figures on each, e.g. [Landfield 1965, Bonarius 1965, 1979, 1971, Meetens 1967 in Chetwynd ibid.]. This finding is interpreted as indicating that elicited constructs are more meaningful than provided constructs, as a result of findings by several authors [Mitsos 1961, O'Donovan 1965, Bonarius 1965, Isaacson 1966, in Chetwynd ibid.] that a positive relationship exists between extremity of ratings and verbal reports of usefulness in describing people for both supplied and elicited constructs.

Evidently this issue must be decided in accord with the purpose of the research.

Fransella and Bannister [ibid] suggest that if the clinician wishes to check on the relative importance of supplied and elicited constructs, then the client should be asked. However, all other factors being equal, eliciting constructs retains the essence of grid technique viz. understanding the patient's view of his world in his own terms - better than does supplying constructs.

d) Methods of presentation and scoring: After elements have been determined and constructs elicited, the elements must be evaluated in terms of the constructs. Once again there are several different techniques available outlined by Chetwynd [1974]. Kelly's original repertory test used a dichotomous scoring technique where every element was allocated to either pole of each construct, facilitating the calculation of 'relationship scores' between constructs by matching pairs of entries. However, some invalid high relationship scores resulted when 'lopsided' constructs occurred.

Bannister [1959] therefore suggested that one half of the total number of elements are at one pole of the construct and one half at the other. However, Chetwynd states that many experimenters found that subjects wished to make more discriminations than such methods permitted. Bannister [1963, in Chetwynd ibid] introduced a ranking procedure, whereby elements are ranked in order of their similarity to the emergent pole. A further development was the introduction of the grading or rating method of scoring, whereby the construct and its opposite pole are situated at two ends of a scale and the elements allocated values.

Slater [1977] states that while virtually any number of points can be provided on grading scales, an odd number of grades has the advantage of providing a neutral point. Seven point scales are often used but are not much more sensitive to variation in practice than five point scales.

Chetwynd (ibid.) cites as the major advantage of the ranking procedure the fact that some subjects find it a much simpler task to put items in order than to assign values to them on a scale. On the other hand, ranking forces discrimination between items when the subject may see them as similar. While this is overcome by the grading procedure, a disadvantage is its susceptibility to response bias.

Chetwynd (ibid.) investigated differences in output of Slater's principal components analysis of grids using three scoring methods: ranking, grading method A (where each element considered in turn, is evaluated on all constructs) and grading method B (where all elements are evaluated on each construct in turn). Results showed relatively few differences between ranking and method B, but both differed from method A, indicating that the situation of comparative judgement created by ranking and grading method B is a more important factor in determining grid structure than the factor of the grading procedure (p. 141).

In sum, then, the method of scoring used to collect data to some extent determines the basic structure of the grid.

Other types of grids are available besides Kelly's repertory test, and the rating and ranking grids described above (e.g. implications grids, resistance to change grids), but are used less frequently and for this reason will not be discussed [see Fransella and Bannister, 1977].

e) Analysis of Grids: Just as several procedures exist for constructing grids, so too are there alternatives in their analysis, both by hand and by computer. For example, for rank order grids, construct relationships may be established by means of rank order correlations, and then a "Relationship Score" calculated, which is, in fact, the amount of variance shared by two constructs. From there a simple form of cluster analysis is carried out which allows a visual display of construct relationships.

Fransella and Bannister outline other methods of hand scoring grids. However, the most comprehensive and widely used method of computer analysis has been developed by Slater [1964], whose programme (INGRID) analyses ranked and graded grids into their principal components. The function of the principal components analysis is to provide a common coordinate system for both the dispersion of elements and the dispersion of constructs. However, information is printed out about a number of properties of grids, e.g. correlations and angular distances between constructs, sums of squared deviations of elements from construct means; unit of expected distance between elements and the ratio of the actual distances to the expected distances between elements; vectors of eigenvalues, construct and element loadings on the principal components. Thus, even if the clinician questions the assumptions of the principal components analysis, then use of the programme can still yield information of considerable value, which is obtained before the principal components are extracted.

In the principal components analysis itself, Slater uses the sums of cross products of a deviation matrix, rather than a correlation matrix, from which to derive the components [Scarr, 1972]. The principal components of the matrix are then plotted geometrically as

orthogonal axes of the hypersphere which represents psychological space and the distributions of the constructs and elements are mapped on the same surface using this common coordinate system given by the components [Slater, 1977]. Shaw [1980] states that this method and its assumption of a hypersphere relies on the fact that most of the variability can be expressed in two or three components, and that the meanings of the components may be interpreted from the component loading matrix.

Slater has provided several other programmes which enable the analysis of grids in pairs, aligned by construct and element (DELTA), by construct only (COIN) and in groups (SERIES, SEQUEL).

Scarr [1972] warned that no adequate evaluation had been undertaken of the Slater approach, and states that Slater's assumption of a hypersphere is very tenuous with some support from Hope [1968], but criticism from Foulds and Hope [1968]. However, with these reservations in mind, Slater's method of analysis will be used in the present research, as it is unequalled in terms of its comprehensive treatment of the data.

Structural Measures Derived from Grids

Several structural aspects of grids, which are distinguished from their content, have been investigated in the hope that they also will have some psychological meaning, and so will yield insight into the personality of or cognitive features of the informant.

a) Cognitive Complexity: A number of authors have provided measures of the postulated dimension of cognitive complexity. Jones [1954] first used the rep grid in this way, assessing complexity by the 'explanation power' of the first factor extracted from the rep grid.

Bieri [1955] defined a cognitively complex system in terms of its ability to differentiate highly amongst persons: the more loosely knit the constructs (the lower the correlations) the more complex the individual's system.

Since that time, a number of measures of cognitive complexity have been developed, and the convergent validity amongst available measures and the generality of complexity-simplicity as a personality construct has been questioned by Vannoy, 1965; Little, 1969 (in Orford, 1974,) Kuusinen and Nystedt [1975a in Fransella and Bannister, ibid]. Crockett [1965 in Orford, ibid] grouped various measures under two headings: measures of verbal differentiation and measures of structural relationships. The first type aim to assess the number of constructs normally used by the subject, whereas the second aims to describe structural relationships between interpersonal constructs, e.g. Chetwynd [in Slater, 1977], uses the percentage of total variation accounted for by the first component of the INGRID analysis as an inverse measure of cognitive complexity; Zajonc [1960 in Orford, ibid] describes a method which provides scores on components of structure such as similarity, homogeneity, unity and organization.

Many authors have attempted to establish correlates of cognitive complexity in terms of interpersonal or social behaviour, and other personality variables. However, because of the lack of congruity of the measures of complexity used, there are many contradictory and confusing findings in this area [Chetwynd in Slater, 1977]. Nonetheless, the concept may still have some practical utility - e.g. Orford [1974] found some support for his hypothesis that alcoholic subjects with a relatively simple style of construing, would leave a half way house prematurely and

with greater frequency than would subjects with a more complex style. "Cognitive complexity" was defined by two measures: firstly, unipolarity of free descriptions of six nominated persons and secondly the amount of variance accounted for by the first two components of Slater's INGRID analysis: the greater the amount of variance accounted for, the greater the redundancy of the grid and hence the greater the degree of assumed underlying cognitive simplicity.

b) Intensity: Bannister [1960], in his study of thought disorder, argues that there is a relationship between the size of correlations obtained on a rank grid, and the notion of "looseness-tightness of construing". Bannister argues that thought disordered persons have become exclusively loose in their construing and are unable to tighten their thinking into plans for action (Fransella and Bannister, ibid). Bannister's Intensity Measure overlaps to some extent with Bieri's concept of cognitive complexity, though Bannister's additional Consistency score aids the discrimination.

While Bannister's Grid Test of Thought Disorder has been shown to discriminate normal and thought disordered subjects, overlap with other groups exists also, while Frith and Lillie [1972] suggest that low scores may be the result not of loose construct systems but of difficulty discriminating between the elements [in Scarr, 1972]. Thus, while the concept of Intensity evidently has both validity and utility, it must be interpreted cautiously.

Other structural measures have been investigated e.g. extremity of responding on graded scales [Chetwynd, 1974], articulation [Makhlouf-Norris Jones and Norris, 1970 in Bannister, 1977]. However, once again evidence of their utility is inconclusive, and they are not as widely used as those discussed in greater depth.

In conclusion, Fransella and Bannister [p. 72, ibid], warn in relation to structural measures of grids:

> "There can be little doubt that as grids are used more and more the variety of grid measures and scores will increase. It is therefore important that users of grids should tighten up their thinking as to the theoretical assumptions underlying what they believe themselves to be measuring."

Reliability of the Repertory Grid

> Reliability is that characteristic of a test which makes it insensitive to change.
>
> [G.A.Kelly in Fransella and Bannister ibid. p.82]

The concept of reliability - the tendency of a test to produce exactly the same result for a subject at different times [Fransella and Bannister, ibid] (strictly speaking, this is test-retest reliability) is problematic when applied to grids.

For one thing, there is no such thing as the grid, but rather there are as many grids as there are subjects who complete them. So to talk of "reliability of grids" is clearly nonsense when discussing this issue. It is much more sensible to ask, as suggested by Fransella and Bannister [ibid] "what kinds of grids, in what area, administered to what kinds of subjects under what kinds of conditions and analyzed in what kind of manner". Thus we cannot talk of the overall reliability of grids nor the reliability of an individually constructed grid. The concept, in this sense has no meaning. However, Slater suggests that there may be occasions where we need to ascertain the 'significance' of a single grid. He provides summary statistics of 100 random grids, so that the null hypothesis - that a particular grid is undistinguishable from an array of random numbers - can be tested.

Evidently, however, there are occasions when the concept of test-re-test reliability is relevant, for example, when assessing a client on two different occasions in order to ascertain any effects of therapy. In this case, if both grids are aligned in terms of elements and constructs, then the general degree of correlation between the two can be ascertained (this is given on the DELTA output) [Slater, 1972]. But if the general correlation between two grids is low - (they have a low test-retest reliability in traditional terms) - what can be said? Slater [1965] suggests that there is no reason why a test should not be designed to measure a variable state of mind. Fransella and Bannister [ibid] point out that stability is often assumed to be "the normal state of affairs and that this "myth of unchanging man" has been perpetrated by trait psychology. As indicated by the quote which heads this section, Kelly also regards as one of the strengths of the repertory grid its sensitivity to change.

In other words, these writers suggest that differences between the same grids administered to a subject on two different occasions be interpreted as reflecting the informants different states of mind on each occasion, rather than unreliability of the test instrument. Slater [1965] suggests that the nature of the changes should then be further investigated; for example, some parts of the grid may change more than others, some constructs may prove more reliable than others, some elements may prove to be stationary. Even if grids are aligned by construct and element differences may be due to either changes in the use of constructs or in the evaluation of the elements. These factors can be discussed with the client and may provide further fruitful information.

While this argument is quite valid, a slight feeling of uneasiness remains: most users of grids would hope that their subjects responses reflect some relatively enduring state of mind, which extends beyond the time of the interview, rather than the state of mind induced, for example, by a dislike of the examiners cold fish-like stare. Once again, the importance of rapport prior acquaintance with the subject, and gentle probing is highlighted as a means of reducing this problem.

Fransella and Bannister [1977] cite research which attempts to establish test-retest reliabilities for different grid measures and populations.

For example, they state that there is clear evidence that certain types of construct are used more stably than others [from Bannister, 1962a]. Furthermore, several authors have looked at whether subjects will reproduce constructs and elements on a second occasion. For both elements and constructs, over a one to two week period, reproduction ranged from 70 to 80 per cent [Hunt, 1951; Pedersen, 1958; Fjeld and Landfield, 1961].

Findings also suggest that different individuals will show varying degrees of stability when given repeat grids, and that clinically different populations may have very different reliabilities e.g. thought-disordered schizophrenics have lower test-retest reliability (consistency) scores than normals or other psychiatric populations [Bannister, 1960 in Fransella and Bannister, 1977].

In sum, then, in relation to grids, 'reliability' is regarded as the name of an area of enquiry into the conditions in which people maintain or alter their construing [Fransella and Bannister, ibid].

Validity of Repertory Grids

> Validity refers to the capacity of a test, to tell us what we already know.
>
> [G.A. Kelly in Fransella and Bannister,p.92]

Once again, because of the fact that the grid is not a standard test, but has an infinity of forms, its validity cannot be discussed as a unitary concept. However, Fransella and Bannister [ibid] suggest that validity may be assessed in terms of 'usefulness' and cite studies from eight areas in support of this claim. Evidently this is not sufficient - the decision as to when something is useful is subjectively determined. In order to qualify as demonstrating validity, various types of grids must be shown to either be in accord with what is known about the informant from other sources, or generate predictions that can be confirmed by further investigation. Several of the measures of grid structure and the Bannister-Fransella Test of Schizophrenic Thought Disorder have been shown to have the former type of validity.

In the case of idiographic grids, validity must be demonstrated idiographically also. Evidently, as was the case with reliability some types of grids completed by some populations may be found to generate more accurate predictions than others, for example. Such research has yet to be conducted.

Evaluation of the Repertory Grid

The nature of grid technique means that evaluation in terms of conventional approaches to evaluating tests is in many ways, not applicable.

However, the impression is gained in reading the literature, that much of it remains, as it was described by Scarr in 1972 [p.14] "partisan, if not outright biased". Whether this is because protagonists

have no adequate conceptual tools with which ot assess what they have done, as Scarr suggests, or because they cannot see flaws in the technique, is unclear.

Scarr raises several points for consideration. Firstly, though Personal Construct Theory and repertory grids rely on judgements of similarity, the nature of similarity is not explored. Rather, a simple view of similarity is taken as an assumption. However, research by some investigators [e.g. Gregson, 1972] suggest that this position may be inadequate. Secondly, grid technique is highly reliant on verbal communication, and therefore, presumably on verbal ability. One wonders about the utility of the technique with inarticulate, less intelligent subjects.

On the other hand, grid technique focuses attention on the individuals view of the world rather than on the practice of categorizing in terms of a standard professional conceptual framework [Bannister, 1965]. This is its forte, and the reason why research into issues relating to validity, and clinical use generally, should be encouraged.

CHAPTER III

AIMS AND METHODS OF THE PRESENT RESEARCH

While pretreatment drinking related, sociodemographic and social variables have been clearly established as relevant to the post-treatment functioning of alcoholics, much of the literature relating to patterns of change in cognitive content variables during therapy, and the relationship of such variables to outcome, offers untested speculations and yields few conclusions.

However, Abbott's [1979] clear-cut finding that both a feeling of control in drinking related situations at discharge, and the subjects own estimate at admission of a less severe drinking problem, are strong predictors of post treatment functioning for some subjects is important. It highlights the usefulness of information gained by the subject, and the value of attempting to clarify further the role of such cognitive content variables in outcome.

From the literature reviewed in Chapter I, three areas have been selected for study in more detail:

1) Changes in perceptions of the self and its drinking-related roles during therapy.

Evidently, Meehls [1978] concept of "context-dependent stochastologicals" is relevant here; in that the treatment programme studied is based on the principles of Alcoholics Anonymous, the roles patients are likely to learn to identify with are very different from those adopted in, for example, non-AA oriented therapy. Thus, the present research may not

have particularly general applicability. On the other hand, as was mentioned previously, the over-generalization of the applicability of results based on a view of "therapy" or "treatment" as a unitary concept, may be seen as a flaw of previous studies.

2) The relationship of a perception of the self and its drinking roles, at both admission and discharge, to posttreatment functioning.

Previous literature leaves unclear issues such as the relationship both of self esteem to outcome, and the integration of perceptions of the self and its drinking roles to outcome.

3) The relationship between pre-admission sociodemographic and drinking variables, perceptions of the self and drinking roles at admission and discharge, and outcome.

Previous research suggests, but once again leaves unclear, that subgroups of alcoholics have different perceptions of the self and its roles than do other subgroups; that these differences may in turn, be related to differences in other "subject" variables such as cognitive functioning or number of previous admissions; and that differences in subject variables and in perceptions may be related to different outcomes.

In the light of these considerations, and the relevant literature, the following hypotheses were formulated:

(1) At admission to the treatment programme under investigation, mean level of self esteem will be low, but by discharge, will have increased: the ideal and actual selves will be seen as more alike at discharge than at admission.

(2) At admission, most people will see their[1] "actual self" and "social self" as more like a "typical alcoholic" or an alcoholic who doesn't benefit from treatment, than "an average social drinker" a "recovering alcoholic" or "teetotaler". In other words, consistent with their low level of self esteem, subjects will identify with negatively connoted roles.

At discharge, however, the "actual self" and "social self" will be construed as more like a "recovering alcoholic" or "teetotaler" than like an "average social drinker", "typical alcoholic", or "alcoholic who doesn't benefit from treatment".

(3) At admission and discharge the future self will be seen as more like a recovering alcoholic or a teetotaler than an average social drinker or a typical alcoholic.

(4) At both admission and discharge the ideal self will be seen as more like an average social drinker than a teetotaler, recovering alcoholic, or typical alcoholic. For most alcoholics, social drinking will still imply normality and respectability.

(5) Individuals who have a "favourable outcome" will:

a) at discharge, see their actual self as more like a "recovering alcoholic" more like the ideal self and less like an alcoholic who doesn't benefit from treatment,

b) have a higher level of pre-treatment functioning (in terms of problem severity, social stability - marital, employment status - education level and job status)

than those individuals who subsequently relapse.

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[1]The same 10 elements are used in the present study as in Heather et als. study (see Chapter I). This will be discussed in more detail in a later section of this chapter.

METHODOLOGY

a) Subject Characteristics

Twenty-four people were interviewed and assessed soon after admission to and again prior to departure from an 8-10 week inpatient alcoholism treatment programme. Subjects were consecutive admissions to Queen Mary Hospital, Hanmer Springs, in the two week period between June 7th and June 21st, 1980. All had received a primary diagnosis of Alcohol Addiction from admitting staff, and though in some cases there was also an additional diagnosis of Personality Disorder or Neurosis, no psychotic patients were included. One male admitted during this period refused to participate in the study. Four subjects failed to complete the programme: two left against medical advice and two were asked to leave because of unruly behaviour.

Of the twenty four subjects, 17 were male and seven female. The mean overall age was 35.6, (sd 12.7) the mean age for the males was 38.4 years (sd12.9) and for the women, 29 years (7.6).

Eleven subjects were married (including three women), seven single (never married)(four women), and six divorced.

Nineteen were employed immediately prior to admission, three unemployed, one retired, and one woman described herself as a full time housewife. Of those employed, four occupied professional or administrative positions, four clerical or skilled positions, and eleven worked in semi or unskilled jobs. Seven subjects had received some university training or advanced technical training, a further six, various degrees of specific job training such as an apprenticeship or secretarial college, and eleven had undertaken no further education beyond secondary school.

Subjects were asked to provide an estimate of the amount of alcohol consumed on a typical drinking day, from which a rough measure of the number of ounces of pure ethanol consumed was guaged. The mean was 11.73 ounces, with considerable variation (sd=4.93). The mean number of years that subjects considered alcohol to have been a problem was 9.9 (sd=9.7). For most subjects (13), this admission was the first for alcohol related problems. Six had received treatment once before, two twice before and one had sought treatment each of three, five and seven times previously.

All of the above statistics show this sample of patients to be very similar in comparison to Abbott's [1979] 106 patients.

Patients were all referred to Queen Mary Hospital on a voluntary basis by health professionals throughout New Zealand. At this time, there was a waiting list for admission, so for some subjects there was a delay between deciding to undergo treatment and entry to the programme. Most did not drink during this period, and for some, the time since the last alcoholic drink was considerably longer. On the other hand, a few had been drinking up to the day of admission. The mean number of days reported since the last alcoholic drink was 40.71 (sd=58.21).

b) The Treatment Programme

Queen Mary Hospital, Hanmer Springs is seventy miles from a large city, in rural surroundings. Patients admitted for treatment stay 8-10 weeks. Family and friends may be contacted by letter, and on weekend leave. Many spouses also attend Family Week towards the end of the programme. The programme is based on the spiritual philosophy of Alcoholics Anonymous (AA).

The individual is encouraged to admit that he/she is an alcoholic and in this sense suffers from disease; that his or her drinking is out of control, and that he/she is willing to make amends for wrongs committed and surrender to a Higher Power [Armor, Polich and Stambul, 1978]. AA maintains that an individual can never be "cured" of alcoholism, but can learn control of the disorder through spiritual change; hence an alcoholic who no longer drinks is a "recovering" rather than a "recovered" alcoholic. Hence, also the specific goal of total lifelong abstinence; even negligible amounts of alcohol will precipitate a relapse into uncontrolled drinking.

Alcoholics Anonymous and the Queen Mary programme, then, aim to help the individual attain sobriety by firstly helping him accept that he is alcoholic. This is facilitated by the fact that the alcoholic is viewed as ill rather than bad, so that the individual is able to accept his or her alcoholism without suffering a lowering of self esteem. On the contrary, AA attempts to foster feelings of belonging to a group which increase self esteem. The final step in this process is that the individual gains sufficient spiritual strength to begin to view him or herself as a recovering alcoholic. Lectures on and reading about AA philosophy comprise an important part of the Queen Mary treatment programme.

Group therapy is the predominant therapeutic approach. Here patients are encouraged to talk about current feelings and conflicts on a variety of issues pertaining to their personal problems. Each patient also has a Privacy Therapist available for individual counselling. Optional groups to which patients may be referred include a Grief Group and Psychodrama. The increase in the number of women alcoholics referred has resulted in the introduction of a Womens Group.

Queen Mary Hospital HANMER SPRINGS

TABLE 3.1 BASIC DAILY PROGRAMME - DAILY EXTRAS AND EXCEPTIONS GIVEN BELOW

	STAGE 1 Welcome Gps	STAGE 2, Group 1,2,3,4,5,&6, 1st Week 2nd Week 3rd Week	4th Week	STAGE 3 1st Week	2nd Week	Readmission Group 7.
08.00	Personal Chores	Ward Chores & Personal Tasks				
08.30	Occupational Therapy	08.30 - 09.15 4th/5th Step Sessions in the Garden Room	Family Therapy Programme	4th/5th Step Sessions in Garden Room	Work Therapy	Work Therapy or Educational Sessions
09.30		09.30 - 10.15 Educational Session - in the Community Centre		4th Step Instruction on Tues & Thurs.		
10.15		MORNING TEA				
10.35	Relaxation Therapy followed by Reading	Group in Garden Room / Reading Group 'Big Book'	Family Group or Reading Group K. & W.	Work Therapy	Work Therapy	Work Therapy
11.40 - 12.30	← FREE TIME →					
12.30	← LUNCH →					
13.30 - 14.30	← LECTURES, FILMS OR PATIENTS PANEL. →					
15.00 - 16.00	← GROUP THERAPY SESSIONS →					

Activities

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
13.30 A.A. Meeting.	9.00 Ward Meeting	10.35 Womens Group 8.30 Grief Group (If referred) 18,30 Higher Power Group.	19.30 Village A.A. Mtg.	10.35 Grief Group 18.30 Ward A.A. Meeting 18.30 Alanon Introductory Group 20.00 Alanon Family Group	13.30 Group Sessions 10.00 Psychodrama (If referred)	09.00 Ward Meeting.

The 8-10 weeks stay is structured into three stages: (refer Table 3.1). In stage one (Welcome Group, week one), patients are given time to familiarize themselves with their surroundings without the pressure of intense therapy. This occurs mainly in the four week Stage Two period. In the final week of Stage Two (Family Week) family members may stay at the hospital, attend Family Group and become involved in Family Therapy. Stage Three (two weeks) is regarded as a gradual "winding down" period during which patients spend a large part of their time carrying out tasks around the hospital (work therapy).

There is a separate two week programme for multiple recidivists, none of whom were included in the present study.

Staff include several recovering alcoholics.

c) Data Collection Instruments

Data were collected by means of several instruments: (i) a Background Information Form, administered individually in the ten days immediately after admission, (ii) a semi-standardized, semi-individualised Repertory Grid, administered during the initial interview and again in the week preceding re-drinking, (iii) a Follow-up Information Form, mailed to subjects twelve weeks after discharge from the programme, (iv) a Follow-Up Questionnaire for referees, mailed at the same time questionnaires were sent to subjects.

i) The Background Information Form: This form (see Appendix 2) was similar in content to that used by Bromet, Moos, Bliss et al [1976, 1977, 1978, 1979, 1980] and Abbott [1979] in their multivariate outcome

studies (see Chapter I). However, several items regarding religious beliefs and practices, race, employment history, and AA attendance were omitted in the present study.

The questionnaire contained items relating to sociodemographic characteristics, age, sex, marital status, living situation, education, and employment. In addition, items assessed quantity of alcohol consumed, usual drinking pattern, number of previous admissions for alcohol problems and a self rating of the severity of the alcohol problem. A number of scales were included which measured alcohol related behaviour patterns (e.g. drinking in the morning on awakening, drinking alone), physical symptoms (e.g. shakes, blackouts), psychological functioning (feeling in control of your life) and social functioning (spending time with close friends).

ii) The Repertory Grid: Grids used in this study were standardized to the extent that the same list of ten elements was used for all subjects. These elements of which five related to drinking roles and five to aspects of the self, were also used in Heather et als [1975] study (see Chapter 1), with the exception of "a recovered alcoholic" which became "a recovering alcoholic" in the present study, in accord with AA philosophy.

Thus, the ten elements provided for all subjects were:

1) Myself as I would really like to be (referred to as Ideal Self)
2) A typical alcoholic like you might find in this hospital (Typical alcoholic)
3) Myself as I will probably be in the future (Future Self)
4) An average social drinker (Social Drinker)
5) Myself as others see me (Social Self)

6) A recovering alcoholic

7) Myself as I used to be (Past Self)

8) A teetotaller

9) Myself as I am now (Actual Self)

10) An alcoholic who does not benefit from treatment (Nonbenefitting Alcoholic).

Grids were idiographic in that a set of ten constructs was elicited from each subject. Thereby, the essential quality of repertory grid technique was retained viz. that of the individual defining his or her own psychological world in terms which are important to him or her. Thus the patient was given the maximum opportunity for self expression, whilst comparisons across group members in terms of standardized distances between element pairs, were also possible.

After all elements had been rated for the extent to which they possessed the qualities described by each construct, a 10x10 Repertory Grid was available for each individual.

The same grid was readministered to each subject shortly before discharge. Heather et al elicited a second set of constructs from subjects on readministering grids, reasoning that psychological change would show itself in changes in the range of convenience of constructs, with the result that some constructs would no longer be important ways of describing some elements. This type of change is not allowed for by the repetition of initially elicited constructs.

While this point is conceded, it was decided to follow Slater's [1969] advice in using a grid with the same elements and constructs at each trial, so that when looking at the individual case in more detail, any variation between a subject's grids may be attributed with greater certainty to changes in the evaluation of elements rather than changes in the constructs.

The problem of comparing the evaluation of elements across individuals, the primary focus of the 'group' analyses of this study, is solved by the use of standardized distances between each pair of elements [Slater, 1977]. This issue will be explained further in the next section.

In sum then, each subject completed two 10x10 Repertory Grids, one after arrival at Queen Mary Hospital and one before discharge. The ten elements were the same across all subjects. A set of ten constructs was elicited from each subject on admission and repeated at discharge.

iii) The Follow-Up Information Form: The questionnaire and covering letter may be found in Appendix 3.

The form was similar in content to the Background Information Form. Information was sought again relating to marital status, stability of living situation, and employment status. Questions also referred to the extent and pattern of alcohol consumption, if any, during the past month, and behavioural, physical and psychological symptoms experienced.

iv) Follow-Up Questionnaire to Referees: This form (see Appendix 4) was identical to that used by Abbott [1979]. The questionnaire was designed to be brief so as to maximize the likelihood of response from the two referees nominated by each subject. Items referred to the ex-patient's living situation, employment status and alcohol consumption, categorized three ways (slight, heavy, incapacitating for work) if the referee was unsure of the exact quantity.

d) Proceedure

Group Meeting

All new admissions to Queen Mary during the preceding week met briefly as a group with the experimenter before initial interviews. The experimenter was introduced by the Medical Superintendent as a postgraduate research student

in psychology, who had his complete backing. The rationale for the study was presented, viz. that although much research has been carried out in the field of alcoholism, we - that is, professionals working in the field - know very little about the way that people with drinking problems see themselves and other drinkers. This information is important not only in helping us to understand the problem, but also in guiding us in the sorts of goals we set for our treatment programmes.

Patients were told that their help was being enlisted in finding this information - that the researcher would be asking to see them for an hour each on two consecutive days, and again at the end of therapy to talk about these issues, and would be sending them a letter twelve weeks after discharge. The point was stressed that the researcher was attached to the university and not the hospital and any information given was totally confidential. It was explained that all information would be coded and names would not appear. Any questions were answered. All except one patient agreed to participate.

First Interview

Each patient was seen for an hour to an hour and a half for the first interview. During this period, some time was spent reiterating the rationale. The patient was also told that twelve weeks after discharge he or she would receive a questionnaire asking about post hospitalization progress. The names of two referees who would give an account of general well-being and drinking were sought. It was explained that information about progress was important in assessing the effectiveness of the treatment programme. Once again, anonymity was stressed and it was pointed out that the study was about the group, not individual results. The patient was again given the opportunity to withdraw. Time was then

spent answering questions about the research and the researcher, and discussing the patients reactions to hospital and to taking part in the study. An important goal then, was to help the individual feel at ease.

The Background Information form was administered as a structured interview after this period. It was reasoned that answering straightforward, factual questions would also help relieve anxieties.

a) Elicitation of Constructs: The patient was shown ten cards, each with an element typed on. It was explained that the researcher was interested in looking at the way the patient saw each of the individual titles, and to do this, would be asking for differences between pairs of them. It was stressed that there were no right or wrong answers - whatever difference the patient saw was valid.

Pairs of cards were presented in standardized order, and organised so that each element appeared twice in the elicitation process. The subject was asked to name an important difference between the two elements in terms of character, personality or emotional state. Heather et al [1975] found the classical triadic method of elicitation of constructs to be too difficult for their alcoholic subjects at this level of abstraction, and so used a dyadic method. Their proceedure was adopted in the present study.

All constructs elicited were required to be explicitly bipolar [Fransella and Bannister, 1977]. Hence the subject was also asked to name the opposite of each construct elicited. In this way, it was ensured that the patients own meaning of the construct was captured for the later rating procedure.

Each construct was also required to fulfil the criteria specified in Chapter II, viz. to have all the elements within its range of convenience: in other words, each construct was required to apply to each element. In cases where this appeared doubtful, the subject was asked to check through the elements to see if this criterion applied.

Constructs were not permitted to be repeated.

Also, in accord with criteria specified in Chapter II, several other types of construct were regarded as unsuitable, and the individual was therefore helped to modify them. These were: (i) excessively permeable constructs such as "one is a man and the other a woman". In this case, the subject was asked to explain that difference further or to suggest another way in which the two were different; (ii) situational constructs: "one lives in a slum and the other in a posh house" - the subject in this case was asked to explain further what this implied to him about the individual in terms of personality or emotional state; (iii) excessively impermeable constructs - such as "one works in a factory and the other in an office". The same procedure as above was followed, and (iv) vague or superficial constructs such as "they're both OK". Once again the subject was asked to explain the difference further.

If the subject continued to have difficulty after the first prompt then the procedure of laddering was used [Hinkle, 1965a, see Chapter II].

Care was taken to ensure that the patient did not feel that he or she was failing or doing badly.

If a subject appeared either to be having difficulty finding appropriate words, or to feel that he or she should be reacting more rapidly, he or she was reassured that the task was new and most people found it difficult, as was, in fact, the case.

b) Constructs Elicited: Thus, ten different constructs were elicited from each individual. Chart 1 illustrates constructs elicited from each three subjects.

Chart 1. Constructs Elicited from 3 Subjects

Subject Code:

Code: 01

Male, age 32 Job - credit manager

1) Immature in emotional and moral spheres, mature in
   Emotional and moral spheres
2) Unlucky, is lucky
3) Incapable of giving and receiving emotional love
   Capable of giving and receiving emotional love
4) Lacks strength of character
   Has strength of character
5) Irrational
   Rational
6) I pity
   I respect
7) No control over his professional and private life
   Has control over his professional and private life
8) Is aloof
   Joins in
9) Not respected by others
   Respected by others
10) Frustrating
    Sound

Subject:09

Male, age 38 Unemployed

1) Finds it difficult to handle life
   Finds it easy to handle life
2) Rigid
   Loose
3) Dishonest emotionally
   Honest emotionally

4) Leads a narrow life
   Leads a balanced life
5) Hung up
   Easy going
6) Dislikes himself
   Likes himself
7) Resentful
   Worked through resentment
8) Destroys himself
   Looks after himself
9) Hasn't lost self centredness
   Lost self centredness
10) Can't relate to people
    Relates to people well

Code 24

Female, age 39 Part time physiotherapist and housewife

1) Lacking self confidence in terms of being able to cope with life's problems
   Self confident in terms of being able to cope with life's problems
2) Has many emotional problems in life
   Has few emotional problems in life
3) Inert and dependent
   Self reliant
4) Not respected by others
   Respected by others
5) Angry
   Serene
6) Doesn't accept him or herself and is therefore closed off
   Accepts him or herself and is open to learn and listen
7) Has no self esteem
   Is self actualized
8) Judgemental and intolerant of others
   Nonjudgemental and tolerant of others
9) Feels insecure
   Feels secure
10) Reserved
    Outgoing

It is evident that each individuals set of constructs is, to a large degree, idiosyncratic. Nonetheless, while it is not appropriate for the author to impose a meaning on subjects constructs it appears that several common themes emerged across the twenty-four subjects. These loosely worded, are presented in Chart 2.

Chart 2: Common Themes in Subjects' Constructs

1) In control of life

   Out of control

2) Respected

   Not respected

3) Faces up to life's problems

   Avoids facing up to life's problems

4) Honest

   Dishonest

5) Confident

   Unconfident

6) Can talk to people

   Shy

7) Has self respect

   Lacks self respect

8) Tense, anxious

   Relaxed

Second Interview

This session was shorter than the first. Patients completed their grids by rating each element on scales defined by the two construct poles. The rating procedure was used as it was thought that this would be a conceptually easier task for subjects.

Five-point scales were used for the reasons specified in Chapter II. Each scale point was labeled and the subject was asked to check that labels were in accord with his or her meaning of the construct.

As was discussed in Chapter II, several methods of scoring grids are available, including ranking elements in order of their similarity to the emergent pole, and two methods of grading. [Chetwynd, 1974]

In accord with Chetwynd's [1974] finding that ranking and grading method B (i.e. where all elements are graded on each construct in turn) produced similar results, and both differed from those obtained by grading method A (where each element is considered in turn and evaluated on all constructs), grading method B was adopted for the present study.

In sum, then, subjects rated on 5-point scales, all elements on each construct in turn. This completed the first repertory grid and the second session.

Third Interview

Each subject was seen again for 45 minutes after Family Week, ten days before discharge. A time closer to discharge would have been preferable, but since some patients do not stay for the final week, this time was chosen so as to avoid missing any subjects. The most intensive period of therapy had been completed by this stage and patients were involved in carrying out jobs around the Hospital.

During this interview, patients repeated the Repertory Grid developed during the first two interviews. They were asked to regrade the elements as they saw them now, and to try and not be influenced by any memories they had of initial ratings.

Patients were also asked about their intentions regarding drinking after discharge. Specifically they were asked to indicate whether they intended to abstain totally, drink in a controlled way, or adopt some other pattern. They were also asked how confident they felt about being able to achieve their stated goals.

Follow-Up Questionnaires

Twelve weeks after discharge, follow up questionnaires were sent to patients and referees. If no reply was received after three weeks, a second copy of the questionnaire was sent.

CHAPTER IV

RESULTS

The data analyses which address the hypotheses outlined in Chapter III were conducted in three stages.

Firstly, individual analyses were carried out on the twenty-four grids obtained at admission, the twenty obtained at discharge, and for each individual, of differences between grids obtained at admission and discharge.

Secondly, group analyses were concerned with assessing the psychological and numerical distance between pairs of elements at admission, and at discharge, and with identifying any group pattern in the changes recorded.

In the third stage of the analyses relationships were investigated between distances between element pairs at admission, discharge, and changes in these distances, and pre-admission sociodemographic and drinking variables. The final analysis was concerned with relationships between distances, between element pairs at discharge, and drinking outcome.

SECTION I

1) Individual Analyses

Individual grids at admission and discharge were analysed by means of Slater's Ingrid 72 Programme.

Output of the programme includes correlations between constructs, total sums of squares accounted for by each element, a table of distances between elements, a principal component analysis and a set of tables defining the relationships between elements in terms of angular distances and direction cosines, and between constructs and elements in component space, in terms of direction cosines [Slater, date unspecified].

The programme provides an option to normalize constructs, so that equal weight is given to the variation recorded by every construct in a grid. Normalization evidently has advantages; for example, wider variation on some constructs may reflect only extreme responding. However, for the present analyses, the option to normalize was not selected, for the reason cited by Slater himself [1977, p. 90], viz:

> One should not tamper with the evidence. Grid technique offers the informant a common scale for all constructs, and if he reports wider variation on some than others, presumably they are the ones he finds more effective for discriminating between the elements.

An analysis of the differences between each individuals grids was obtained from the DELTA programme, the essential operations of which are to form a grid of differential changes by subtracting the first grid from the second, and then to put it through a principal component analysis. The results show the extent and direction of changes that have occurred [Slater, 1977]. Results are printed out in a sequence similar to that described for Ingrid 72.

Thus, at the completion of this stage of the analysis, for the twenty subjects present at admission and discharge there were two Ingrid analyses of grids and a DELTA analysis of the differences between grids. For each of the four subjects who failed to complete treatment, there was one Ingrid analysis of admission grids.

A detailed presentation of the three grids of two individual subjects is found after the group analyses in this Chapter.

2) The concept of Element Distance

The measurement on which much of the following analysis of group data is based is the distance separating two elements in individual construct space. A change in construing is defined as a change in the distance between a pair of elements within an individual construct space [Heather et al, 1975].

Mathematically, element distance is a measure of the distance separating any two elements in the space formed by using the constructs as coordinates [Heather et al, 1975]. The obtained distance between two elements J and K is given by

$$\sqrt{\Sigma(d_{ij}) - d_{ik})^2} \qquad (i = 1,\ldots n)$$

where

d_{ij} is the deviation of element J from the construct mean i, and,

d_{ik} is the deviation of element K from this mean [Slater, 1977].

In other words the obtained distance between two elements is effectively the square root of the sum, over all constructs, of the differences in their deviations from construct means. This obtained distance can be

expressed on a standard scale if it is compared with the expected distance between a pair of elements taken at random from the same grid, given by the formula

$$\sqrt{2V/(m-1)}$$

where

V is the total variation about construct means,

and,

m is the number of elements [Slater, 1977].

Thus, the distance between two elements is the ratio of the obtained to the expected distance, and distances over 1 are greater than random expectation, while those under 1 are less than random expectation. These standardized distances make it possible to compare grids aligned in terms of elements but not constructs.

This measure of distance taken alone does not tell at which pole of the construct scales the elements are graded. For example, pairs "typical alcoholic", "nonbenefitting alcoholic" and "ideal self" and "average social drinker" may be separated by the same distance, but may be construed very differently, one pair in negative terms and one in positive terms. This information must be inferred from the overall pattern of interelement distances.

For the purposes of the present research, the concept of element distance is interpreted as providing an indication of perceived similarity or "alikeness". For example, if "ideal self" and "average social drinker" are closer in distance than "ideal self" and "a typical alcoholic" then the former two are interpreted as perceived as more similar; in that their assigned grades on construct scales are closer together, they are described in more similar terms.

SECTION II

Group Analyses

Table 4.1 presents for 20 subjects, means and standard deviations of distances between element pairs at admission, and at discharge. Statistically significant differences from 1 (random expectation) for pairs at admission and at discharge are indicated, as are statistically significant changes in element distances between admission and discharge.

a) Distances between element pairs at admission:

Slater [1977] provides summary statistics for 100, 10x10 arrays of random numbers (Quasis) using different scales which enable testing of the null hypothesis that an obtained grid is indistinguishable from an array of random numbers. Thus, if an obtained distance between a pair of elements is two or more standard deviations from the mean Quasi linear distance between elements, it may be said that if the array was generated randomly, results as extreme or more extreme have only a one in twenty chance of having occurred. Table 4.1, note 2, presents summary characteristics for Quasis using 5 point non-normalized scales.

Reference to Table 4.1 shows that several of the distances between element pairs at admission are, according to the above criteria, significantly different from the mean distance between elements of the Quasis (0.9838).[1]

Specifically, the element pair separated by the greatest distance is "ideal self" and "nonbenefitting alcoholic" (1.76). Moderate distances are also found between "future self" and "nonbenefitting alcoholic" (1.44), "average social drinker" and "nonbenefitting alcoholic" (1.40), "ideal self" and "past self" (1.39) and "ideal self" and

[1] Throughout the present and following chapter a very large or small distance between elements is defined as one which is over 3 sds from the quasi mean (<0.45 or > 1.52); a moderate distance is 2-3sds from the quasi mean (<.63,> 1.34). Element pairs separated by distances within these limits are considered not particularly strongly related

"typical alcoholic" (1.36). Smaller distances are found between "teetotaler", and "nonbenefitting alcoholic" (1.33) and "recovering alcoholic" and "nonbenefitting alcoholic" (1.30).

In other words, at admission, patients saw their ideal selves as very different from an alcoholic who doesn't benefit from treatment, a typical alcoholic and their past self. They also saw themselves in the future as moderately dissimilar to an alcoholic who doesn't benefit from treatment. Distinctions were made between "nonbenefitting alcoholic" and several other drinking roles, in particular an "average social drinker" but also "recovering alcoholic" and"teetotaler".

Some support is provided for the hypothesis that, at admission, patients self esteem, in terms of distance between "actual" and "ideal self" elements, is low. The distance between them (1.12) is greater than random expectation, though is less than one standard deviation from the random mean.

The element pair separated by the shortest linear distance at admission is "future self" and "average social drinker" (0.42), more than three standard deviations below the random grids mean distance between element pairs. Also separated by very short linear distances are "average social drinker" and "teetotaler" (0.43). "Ideal self" and "future self" (0.49), "future self" and "recovering alcoholic" (0.52) "ideal self" and "average social drinker" (0.56), and "future self" and "teetotaler" (0.60) are separated by moderately small linear distances.

In other words, at admission patients construed themselves in the future and an"average social drinker",and an"average social drinker"and a "teetotaler",as very similar. They also construed the"future self" as moderately similar to the"ideal self"to a"recovering alcoholic;" and a "teetotaler." The"ideal self"and an"average social drinker"were seen as moderately aligned.

i) T-Tests

Repeated measures t-tests were conducted, using the SPSS[1] package, on the differences between the mean distances of the element pairs at admission. Because of the ipsative nature of the measures, where a change in the location of a single element affects all nine element distances in which it partakes, the assumption of statistical independence among error components required when using tests [Hays, 1978] is contravened in this case. Therefore, results should be interpreted very cautiously.

These t-tests were conducted to test the hypotheses cited in Chapter III, which, operationally defined in terms of the interpretation of element distance presented above, state that at admission:

1) "ideal self" and "average social drinker" are closer in linear distance than "ideal self" and "recovering alcoholic", "ideal self" and "teetotaler" and "ideal self" and "typical alcoholic".

Results of t-tests show that "ideal self" and "average social drinker" (0.56)[2] are statistically significantly closer in distance than "ideal self" and "teetotaler" (0.69)($p < .05$) and "ideal self" and "typical alcoholic" (1.36)($p < .00$), so the hypothesis is confirmed. However, the distances between "ideal self" and "average social drinker" and "ideal self" and "recovering alcoholic" (0.69) do not attain statistical significance ($p < .1$) though are in the predicted direction.

In other words, at admission, patients saw their ideal selves as more like an "average social drinker" than a "teetotaler" or a "typical alcoholic". There was also a tendency to see the "ideal self" as more like an "average social drinker" than a "recovering alcoholic".

[1] Statistical Package for the Social Sciences

[2] Numbers in brackets after each pair of elements are mean distances for 24 subjects between element pairs, as presented in Table 4.1.

TABLE 4.1: Mean Distances between Element Pairs at Admission and Discharge, Statistical Significance of Changes and Standard Deviations from the Quasi Mean of 100 Quasis

		1	2	3	4	5	6	7	8	9	10	
					++	--				--		
1) Ideal Self	A		1.36*	0.49*	.56*	1.05	0.69	1.39*	0.69	1.12	1.76**	A
	D		1.32	0.44**	.70	0.72	0.59*	1.55**	0.79	0.74	1.80**	D
					-							
2) Typical Alcoholic	A			1.08	1.05	0.79	0.93	0.74	1.04	0.70	0.71	A
	D			1.07	0.88	0.83	0.93	0.74	0.88	0.86	0.70	D
					+++	--		++		--		
3) Future Self	A				0.42**	0.81	0.52*	1.16	0.60*	0.82	1.44*	A
	D				0.59*	0.59*	0.47*	1.36*	0.66	0.45 *	1.51*	D
						--				--		
4) Ave. Soc.Drinker	A					0.79	0.63	1.15	0.47*	0.81	1.40*	A
	D					0.59*	0.65	1.11	0.43*	0.59*	1.28	D
							--	++	-	-	++	
5) Social Self	A						0.75	0.78	0.88	0.68	0.97	A
	D						0.54*	1.11	0.65	0.47*	1.25	D
										-		
6) Recovering Alc.	A							1.08	0.74	0.76	1.30	A
	D							1.24	0.72	0.56*	1.40*	D
										+++		
7) Past Self	A								1.09	0.76	0.68	A
	D								1.11	1.21	0.58*	D
										-		
8) Teetotaler	A									0.87	1.33	A
	D									0.64	1.24	D
											++	
9) Actual Self	A										0.91	A
	D										1.25	D
10)Nonbenefitting Alc.	A											
	D											

NOTE 1: + = significant increase at $p < .05$ - = significant decrease at $p < .05$ A = Admission
++ = " " $p < .01$ -- = " " $p < .01$
+++ = " " $p < .001$ --- = " " $p < .001$ D = Discharge

NOTE 2: Mean Interelement Distance of 100, 10x10 Quasis: X = 0.9838, s = 0.1793
- 1sd = 0.8045 + 1sd = 1.1631
* - 2sd = 0.6252 * + 2sd = 1.3424
** - 3sd = 0.4459 ** + 3sd = 1.5217

2) "future self" and "recovering alcoholic" are closer in linear distance than "future self" and "average social drinker", "teetotaler" and "typical alcoholic".

Results of t-tests show that "future self" and "recovering alcoholic" (0.52) are significantly closer in distance than "future self" and "typical alcoholic" (-1.08)($p < .00$).

However, "future self" and "average social drinker" (0.42) are in fact closer in distance than "future self" and "recovering alcoholic" (0.52) and though the difference does not attain statistical significance, nonetheless this part of the hypothesis is refuted.

Furthermore, the difference between "future self" and "recovering alcoholic" (0.52) and "future self" and "teetotaler" (0.60) does not reach statistical significance, though it is in the predicted direction ($p < .39$).

In other words, contrary to predictions, "future self" and "average social drinker" are closer than "future self" and "recovering alcoholic". Patients saw their "future selves" as more similar to an "average social drinker" than a "recovering alcoholic", and a "typical alcoholic". Patients also saw themselves as more like a "recovering alcoholic" than a "teetotaler".

3) that "social self" and "typical alcoholic" are closer in distance than "social self" and "recovering alcoholic", "average social drinker" and "teetotaler".

Results of the relevant t-tests show that there are no statistically significant differences (where $p < 0.05$) between "social self" and "typical alcoholic"(0.79),"recovering alcoholic"(0.75),"average social drinker"(0.80) or

"teetotaler" (0.88). In fact, the fact that "social self" is slightly closer to "recovering alcoholic" than "typical alcoholic" is contrary to hypotheses.

In other words, at admission, patients construed their "social selves" as equally similar to a "typical alcoholic", a "recovering alcoholic" and a "teetotaler" or, given that the absolute distances are not far from 1 (.75-.80),not particularly like any of these.

4) that "actual self" and "typical alcoholic" are closer in distance than "actual self" and "average social drinker", "actual self" and "recovering alcoholic" and "actual self" and "teetotaler".

For all of these comparisons results of the sample are in the directions predicted for the population, in that "actual self" and "typical alcoholic" (0.70) are closer in distance than "actual self" and "average social drinker" (0.82), "recovering alcoholic" (0.76) and "actual self" and "teetotaler" (0.87). However, no comparison reaches the 0.05 significance level. The hypotheses therefore receive weak support. Furthermore, the absolute element distances suggest that "actual self" at admission is not construed as particularly like any of these elements.

In summary then: at admission, patients construed their ideal and future selves in very similar ways. The "ideal self" was seen as moderately close to an "average social drinker" - slightly closer to an "average social drinker" than to a "recovering alcoholic", or a "teetotaler", but considerably different from a "nonbenefitting alcoholic".

A "typical alcoholic" was not seen as particularly like any of the other elements at admission.

"Future self" and "average social drinker" were also construed very similarly and slightly closer than "future self" and "recovering alcoholic" or "teetotaler", both of which were seen as moderately similar to the "future self".

An "average social drinker" was seen as moderately like a "recovering alcoholic", but very like a "teetotaler", moderately different from a "nonbenefitting alcoholic".

"Social self" was not seen as particularly similar to an "average social drinker", a "recovering alcoholic" or a "teetotaler", in fact, to any of the other elements.

"Past self" and "ideal self" were construed as moderately different while past self was not seen as particularly like any other element, but more like a "nonbenefitting alcoholic" than "actual self", "social self" or "typical alcoholic".

"Actual self" was not seen as especially like any of the other elements but more like a "typical alcoholic", and "social self" than a "recovering alcoholic", an "average social drinker" or a "teetotaler".

b) Element distances at discharge (Refer Table 4.1)

As was the case at admission, large linear distances between pairs of elements at discharge are found between "ideal self" and "non-benefitting alcoholic" (1.80), "ideal self" and "past self" (1.55), and "future self" and "nonbenefitting alcoholic" (1.51), all of which are approximately three standard deviations from the mean Quasi distance between elements. The distances between all pairs have, in fact, increased slightly. The distance between "recovering alcoholic" and "nonbenefitting

alcoholic" is also moderately large at discharge (1.40), as is the distance between "past self" and "future self" (1.36). Smaller distances are found between "ideal self" and "typical alcoholic" (1.32), "average social drinker" and "nonbenefitting alcoholic" (1.28), "social self" and "nonbenefitting alcoholic" (1.25), "actual self" and "nonbenefitting alcoholic" (1.25) and "teetotaler" and "nonbenefitting alcoholic"(1.24).

In other words, at discharge, patients saw their ideal and future self as very different from a "nonbenefitting alcoholic" and their past self.

A "nonbenefitting alcoholic" was also construed as moderately dissimilar to a "recovering alcoholic".

Once again, at discharge, "ideal self" and "future self" are separated by a very short linear distance (0.44), as are "average social drinker" and "teetotaler" (0.43). The distance between both pairs is approximately three standard deviations from the mean Quasi distance between element pairs. Moderately short distances are also found between "future self" and "recovering alcoholic" (0.47) and "average social drinker" (0.59); "actual self" and "future self" (0.45), "social self" (0.47) "recovering alcoholic" 90.56), and "average social drinker" (0.59); and "social self", "recovering alcoholic" (0.54), "future self" (0.54) and "average social drinker" (0.59).

So, at discharge, patients construed their "ideal self" and "future self" very similary. Their "actual self", "future self" and "social self" in similar ways also, and as moderately closely aligned to both an "average social drinker" and a "recovering alcoholic".

i) T-Tests

Once again, repeated measures t-tests were conducted on differences between mean distances of element pairs at discharge.

T-tests were conducted to test the following hypotheses, cited in Chapter III:

1) at discharge, "ideal self" and "average social drinker" will be closer in linear distance than "ideal self" and "recovering alcoholic", and "ideal self" and "teetotaler".

Results of t-tests show that, although none of the comparisons attain statistical significance, in fact the result is in the opposite direction to that predicted i.e. that the distance between "ideal self" and "recovering alcoholic" (0.59)[1] is actually smaller than the distance between "ideal self" and "average social drinker" (0.70) and "ideal self" and "teetotaler" (0.79). In fact, the "ideal self" is not construed as particularly like either an "average social drinker" or a "teetotaler".

In other words, at discharge, patients saw their ideal selves as more like a "recovering alcoholic" than an "average social drinker" or a "teetotaler". This hypothesis is therefore refuted.

2) "Future self" and "recovering alcoholic" are closer in distance than "future self" and the "average social drinker" and "future self" and "teetotaler".

Although none of the comparisons attain statistical significance, they are in the predicted direction, i.e. for "future self" and "recovering alcoholic" (0.47) to be closer than "future self" and "average social drinker" (0.59) and "teetotaler" (0.66).

3) "Social self" and "recovering alcoholic" will be closer in distance than "social self" and "teetotaler", "average social drinker" and "typical alcoholic".

---

[1] Numbers in brackets after each pair of elements are mean distances for 20 subjects between element pairs, presented in Table 4.1.

Results of t-tests show that the difference between pairs "social self" and "recovering alcoholic" (0.54) and "social self" and "typical alcoholic" (0.83) confirms this aspect of the hypothesis ($p < .02$). Once again, however, neither of the other comparisons attain statistical significance. Results are in the predicted direction for the distances "social self" and "recovering alcoholic" (0.54) and "social self" and "teetotaler" (0.65)($p < .17$), but the difference in distance between "social self" and "recovering alcoholic" and "social self" and "average social drinker" (0.57) is very small.

In other words, at discharge, patients construed their social selves as more like a "recovering alcoholic" than a "typical alcoholic" or a "teetotaler", but also as moderately like an "average social drinker".

4) that "actual self" and "recovering alcoholic" are closer in distance than "actual self" and "average social drinker", "actual self" and "teetotaler" and "actual self" and "typical alcoholic".

Results of t-tests show that though the findings are in the predicted direction in terms of the difference in distance between "actual self" and "recovering alcoholic" (0.54) and "actual self" and "average social drinker" (0.59), this does not approach significance ($p < .49$). This aspect of the hypothesis is thus only weakly supported. There is a stronger, nonsignificant trend for "actual self" and "recovering alcoholic" (0.54) to be closer in distance than "actual self" and "teetotaler" (0.64)($p < .2$). The difference in distance between "actual self", "recovering alcoholic" and "actual self" and "typical alcoholic" (0.86) is highly significant, in the predicted direction ($p < .008$).

In other words, at discharge, "actual self" was construed as moderately similar to both a "recovering alcoholic" and an "average social drinker", less like a "teetotaler" and least like a "typical alcoholic".

In summary: At discharge patients saw their "ideal self" as very like the "future self". Of the drinking roles there was a trend for the "ideal self" to be seen as most (moderately) like a "recovering alcoholic" and least (very unlike) a "nonbenefitting alcoholic".

The "future self" and "actual self" were construed as very similar at discharge, and "future self"and "social self" also were seen as moderately similar. There was a strong trend for the "future self", seen as moderately like a "recovering alcoholic", to be seen as and more like a "recovering alcoholic" than an "average social drinker" or a "teetotaler". The "future self" was seen as very dissimilar to a "nonbenefitting alcoholic".

An "average social drinker" was construed as very like a "teetotaler" not particularly like a "recovering alcoholic", and least like a "typical alcoholic" (though the difference between the latter two is still less than random expectation).

The "social self" at discharge was seen as moderately like the "future" and "actual self".

Of the drinking roles, "social self" was also construed as moderately similar to both a "recovering alcoholic" and an "average social drinker".

The "past self" and the "ideal" and "future selves" were construed as being very different, whereas the "past self" and a "nonbenefitting alcoholic" were held to be moderately similar.

The "actual self" at discharge was seen by patients as very like the "social" and "future" self, but not particularly like the "ideal self". Of the drinking roles the "actual self" was construed as moderately like both a "recovering alcoholic" and an "average social drinker".

c) Changes in element distances between admission and discharge

Forty-five two-tailed repeated measures t-tests, formed by combinations of any two of the ten elements at admission and discharge, were conducted in order to assess any group pattern in changes in distances between element pairs over time, between admission and discharge. The problem of multiple t-tests is acknowledged; using 45 t-tests means that at least two may be significant because of chance factors alone. Therefore, statements may not be made about the number of changes that are significant and the number that are not. However, in any analysis it is important not to use statistical significance as the sole criterion of the "importance" of a result. In this analysis, as in those that have preceded, the overall pattern of changes will be studied. A statistically significant finding will be interpreted as showing that, in generalizing to the underlying population, we can confidently reject the hypothesis that there are no average changes in this population.

Heather et al [1975] cite as a further confounding problem in the use of t-tests in this way, the considerable redundancy in the changes observed, in that a change in the location of one element affects the distance between all other element pairs of which it is a member. However, the repertory grid is representing a model, albeit an imprecise one, of psychological space, and it is not unreasonable to suggest that such interdependent changes are what actually occurs. Changing one's evaluation of a salient element means that elements connected with it are changed also. To describe this process as a statistical artefact and to use the term "redundancy" to describe it, may in fact, undermine its psychological basis.

The use of the hypothetical-deductive model of research methodology, in which hypotheses are formulated on the basis of prior evidence and then subject to test, also helps in the interpretation of results possibly confounded by these problems. If a highly statistically significant change has occurred that has been predicted a priori, then it is less likely that such a change is either due to chance or "redundant" in the sense of not psychologically important.

Reference to Table 4.1 shows the mean distances for 20 subjects between element pairs at admission and discharge, and those changes that reach statistical significance.

Table 4.2 summarizes again the levels of statistical significance of the forty-five t-tests of change in element distances.

TABLE 4.2: Levels of Statistical Significance of 45 t-tests of Changes in Distances between Element Pairs

	1	2	3	4	5	6	7	8	9	10
1) Ideal Self				++	--				--	
2) Typical alcoholic				-						
3) Future self				+++	--		++		--	
4) Average Soc. drinker					--				--	
5) Social self						--	++	-	-	++
6) Recovering alcoh.									-	
7) Past self									+++	
8) Teetotaler									-	
9) Actual self										++
10) Nonbenefitting alcoholic										

\+ = significant increase at $p < 0.05$ - = significant decrease at $p < 0.05$
++ = " " $p < 0.01$ -- = " " $p < 0.01$
+++ = " " $p < 0.001$ --- = " " $p < 0.001$

Several large changes in element distances have occurred between admission and discharge. The distance between "future self" and "average social drinker" ($p < .001$) and "ideal self" and "average social drinker" ($p < .01$) have both increased, whereas the distance between "typical alcoholic" and "average social drinker" has decreased somewhat ($p < .05$).

Most element pairs containing "social self" have undergone statistically significant changes in distance.

Thus the distance has decreased between "social self" and "ideal self" ($p < .01$), "future self" ($p < .01$) and "actual self"($p < .05$) and "average social drinker" ($p < .01$) "recovering alcoholic"($p < .01$) and "teetotaler" ($p < .05$). At the same time, distances have increased between "social self" and "past self ($p < .101$) and "nonbenefitting alcoholic" ($p < .01$).

This pattern of results confirms the implication of hypotheses, that the distance between"social self" and "recovering alcoholic" will decrease during treatment.

As also implied by hypotheses, the distance between "social self" and "nonbenefitting alcoholic" has increased significantly in the traditional statistical sense. The mean distance between "social self" and "typical alcoholic" has shown a slight but nonsignificant tendency to increase providing only weak support for the hypothesis that the distance between these two elements would increase.

Element pairs containing "actual self" have also changed consistently.

As predicted, the distance between "actual" and "ideal" selves has decreased between admission and discharge ($p < .01$) as has the distance between "actual self" and "future self ($p < .01$). The distances between "actual self" and "recovering alcoholic" ($p < .05$) and "actual self" and "teetotaler" ($p < .05$) have also decreased, consistent with hypotheses, though this pattern is less consistent than the previous changes. However, the distance between "actual self" and "average social drinker" has decreased also ($p < .01$).

Distances between "actual self" and "past self" ($p < .001$) and "nonbenefitting alcoholic" ($p < .01$) have both increased significantly, the latter in accord with predictions. The mean distance between "actual self" and "typical alcoholic" has also shown a statistically nonsignificant increase.

In sum, the following major changes in distance between element pairs have occurred between admission and discharge.

Large changes occurred between "future self" and "average social drinker" and "actual and post selves", both of which increased in distance.

"Social self" came to be seen as more like "ideal self", "future self" and "recovering alcoholic" and an "average social drinker", and to a lesser extent, more like "actual self" and "teetotaler". "Social self" is seen as less like "past self" and a "nonbenefitting alcoholic".

"Actual self" came to be seen as more like "ideal self" "future self" and an "average social drinker", and to a lesser extent more like "social self", a "recovering alcoholic" and a "teetotaler". "Actual self" came to be seen as less like a "nonbenefitting alcoholic" and "past self".

d) Summary of patterns of inter element distances at admission, at discharge, and changes in inter element distances

In this summary, in the interests of clarity, each element will be looked at in turn. Reference to table 4.1 will clarify the text.

Ideal Self: at admission, and discharge, "ideal self" was seen as very similar to "future self", very dissimilar to "nonbenefitting alcoholic" "past self" and moderately dissimilar to a "typical alcoholic".

Major changes occurred in the relationship between "ideal self" and "actual self", though at discharge, although considerably closer than previously, they were still not seen as particularly similar; between "ideal self" and "social self", which also came to be construed as more similar between admission and discharge but which once again, were still not particularly close in distance; and between "ideal self"and "average social drinker", which were seen by patients as less similar at discharge than at admission. The result of the latter change is that, whereas at admission, the "ideal self" was seen as somewhat more like an "average social drinker" than a "recovering alcoholic" at discharge, the reverse was the case, viz. the "ideal self" was seen at discharge as moderately like a "recovering alcoholic", and not particularly like an "average social drinker".

Typical Alcoholic: interrelationships between this element and others appeared to change little between admission and discharge, though there was a nonsignificant increase in distance between "actual self" and "typical alcoholic," and a decrease in distance between "typical alcoholic" and "average social drinker." A "typical alcoholic" then at admission and discharge was not seen as particularly similar to any other element, though was slightly closer to the "past self" and a "nonbenefitting alcoholic," than to the others.

Future Self: at both admission and discharge, the "future self" and "ideal self" were construed very similarly, as were "future self" and "recovering alcoholic." "Future self" and "nonbenefitting alcoholic" were seen as very dissimilar on both occasions.

A large increase in distance occurred between "future self" and "average social drinker," so that, at the end of therapy, patients tended to see themselves in the future as more like a "recovering alcoholic" than an "average social drinker," whereas at admission, the reverse had been the case.

" Future self" and "past self" came to be seen as less similar, whereas "future self" and "actual self" were construed as very alike at the end, but not the beginning of the programme.

Average Social Drinker: as previously mentioned, at admission, an "average social drinker" was construed as moderately like the "ideal" and very like the "future self," but both distances increased considerably during therapy, so that at discharge, an "average social drinker" was seen as moderately like the "future self" and not particularly like the "ideal self." On the other hand, "actual self" and "average social drinker" came to be seen as moderately similar between admission and discharge.

An "average social drinker" and a "teetotaler" were construed by patients as very alike at admission and discharge. The distance between a "recovering alcoholic" and an "average social drinker" was also the same at admission and discharge, though they were seen as less alike than a "teetotaler" and "average social drinker" on both occasions.

Social Self: at admission, "social self" was not construed as particularly similar to any of the other elements. However, this element changed in its interrelationships with most others, so that at discharge, the "social self" was seen as moderately like the "future" and "actual selves", a "recovering alcoholic" and an "average social drinker".

"Social self", "nonbenefitting alcoholic" and the "past self" were seen as less alike at discharge than admission.

Recovering Alcoholic: as cited above, at both admission and discharge, a "recovering alcoholic" was seen as most like the "future self" but at discharge, was also seen as moderately similar to the "actual self", "social self" and "ideal self".

Past Self: at admission, past self was equally close in terms of element distance to both"actual self"and a"typical alcoholic", and though its relationship with "typical alcoholic" remained constant, at discharge it was seen as considerably less like the "actual self", as well as less like the "social self". At discharge, the "past self" was construed by patients as moderately similar to a "nonbenefitting alcoholic".

Teetotaler: the interrelationships of this element and the others changed relatively little between admission and discharge. At both points, a "teetotaler" was seen as most similar (i.e. very) to an "average social drinker" and least to a "nonbenefitting alcoholic". During the treatment programme, the "teetotaler" came to be construed as relatively more like the

the "actual self" and "social self" - though they were still not construed as particularly similar at discharge - but as less like the "ideal" and "future self", so that they also, were not seen as particularly alike at discharge.

Actual Self: at admission, the "actual self" was not seen as particularly like any of the other elements. Several major changes relating to this element took place between admission and discharge; specifically, the "actual self" came to be construed as more like the "ideal self", the "future self", the "social self", an "average social drinker", a "recovering alcoholic", and a "teetotaler", and less like the "past self" and a "nonbenefitting alcoholic".

So that, at discharge, the "actual self" was construed as very similar to the "future" and "social selves", as moderately similar to an "average social drinker", a "recovering alcoholic" and a "teetotaler", and as not particularly similar to a "nonbenefitting alcoholic".

Nonbenefitting Alcoholic: at both admission and discharge the "nonbenefitting alcoholic"was construed by patients as most similar to a "typical alcoholic" and their "past self", the latter distance in fact increased slightly in the intervening period. "Social self" and "actual self" both were seen as considerably less like a"nonbenefitting alcoholic" at discharge than admission. All other elements were seen as very dissimilar from a "nonbenefitting alcoholic" at both admission and discharge.

e) Changes in Individual Elements

The question arises as to which individual elements have changed the most between admission and discharge; in other words, which elements are rated most differently in terms of all the constructs, at discharge. This

question can not be answered by referring to changes in distances between pairs of elements. However, it is important to know if, for example, the decrease in distance between "ideal self" and "actual self" is more likely to be due to a consistent downgrading, at discharge, of "ideal self" or to a consistent upgrading of "actual self" on construct scales, or to movement of both. The latter two instances would generally be preferable to the former.

The DELTA analysis for each individual provides a table of the total sums of squares, and the per cent of the variation of the changes (Grid B-Grid A) accounted for by each element. The elements with the greatest sums of squares are the ones which show the largest changes [Slater, 1977].

Table 4.3 presents means and standard deviations for 20 subjects of the sums of squares of the differences between the first and second grid, for each element.

TABLE 4.3: Means and Standard Deviations for each Element of Sums of Squares of the Differences between Grids at Admission and Discharge

Element	Mean SSs	SD
1) Ideal self	4.90	4.58
2) Typical alcoholic	12.49	11.12
3) Future self	4.51	2.90
4) Average social drinker	6.63	3.54
5) Social self	14.95	14.34
6) Recovering alcoholic	9.42	8.67
7) Past self	11.87	19.38
8) Teetotaler	7.61	6.07
9) Actual self	16.91	15.21
10) Nonbenefitting alcoholic	7.47	6.64

As may be seen from Table 4.3, changes in most elements show a large amount of variation across subjects, as shown by the large standard deviations relative to the means.

Reference to Table 4.3 suggests that the elements that were evaluated most differently at admission and discharge are "actual self" and "social self" followed by "typical alcoholic", while those that changed least are "ideal self" and "future self", followed by "recovering alcoholic". A series of t-tests, subject to the same cautions as those previous, was conducted to compare the magnitudes of difference sums of squares. Table 4.4 presents probability levels for each comparison, and shows that the differences in mean sums of squares between those that appear to have changed most between admission and discharge ("actual self" and "social self") on the one hand, and those that appear to have changed least ("ideal self", "future self") do, in fact, attain statistical significance.

TABLE 4.4 Probability level of each comparison between difference sums of square

	Elements									
	1	2	3	4	5	6	7	8	9	10
Ideal self		.01	.75	.22	.01	.05	.16	.16	.01	.16
Typical alc.			.01	.04	.50	.25	.01	.08	.31	.06
Future self				.07	.01	.04	.10	.07	.00	.08
Ave. soc.dr.					.01	.16	.26	.32	.00	.59
Social self						.05	.57	.03	.54	.02
Recovering alc.							.61	.40	.05	.37
Past self								.38	.24	.37
Teetotaler									.01	.94
Actual self										.01
Nonbenefitting alcoholic										

Correlations between elements

The linear distance between two elements is essentially the square root of sum, over all constructs, of the differences in deviations of each element from construct means (see p. 65). This measure provides information about the size of the differences between two elements but not about the extent to which a pattern of grades across constructs is shared by the two elements. This information is provided by the coefficient of correlation between two elements. However, apart from its positive and negative poles, the correlation coefficient fails to provide information about the distances between grades assigned to elements.

For example, it is possible that an element pair separated by a linear distance of 0.60 i.e. that are construed as quite close together are graded, relative to each other, 'high' or 'low' on different constructs: i.e. intercorrelate to quite a low degree.

So, the two measures may in some cases provide complementary information, for if an element pair is separated by a relatively short linear distance (e.g. 0.50) and also intercorrelates highly, then, in a sense, the two elements are construed as "more" similar than an element pair separated by the same linear distance, but with a lower degree of intercorrelation.

TABLE 4.5: Mean Angular Distances between Element Pairs at Admission and Discharge and Statistical Significance of Changes

		1	2	3	4	5	6	7	8	9	10
										--	
1) Ideal Self	A		138.31	30.05	44.28	89.59	61.26	131.42	60.33	112.11	156.40
	D		137.71	35.68	61.25	83.15	52.39	148.24	66.47	65.89	165.89
										++	
2) Typical Alc.	A			134.01	127.72	98.14	105.54	65.76	116.08	74.71	49.50
	D			131.31	117.25	100.95	113.15	50.31	113.44	116.34	44.69
					++					---	
3) Future self	A				46.31	92.80	60.55	163.62	66.86	109.41	149.94
	D				76.31	80.98	57.61	146.47	80.88	50.71	144.70
											-
4) Av. Soc. Drkr	A					97.29	75.52	129.07	58.14	109.91	135.90
	D					105.05	92.08	113.59	54.18	95.18	117.63
5) Social Self	A						89.06	94.13	101.96	90.04	92.22
	D						81.33	99.99	109.52	72.22	104.28
6) Recov. Alc.	A							118.81	89.71	100.15	122.83
	D							125.78	93.80	77.64	130.80
										+	-
7) Past Self	A								113.32	86.55	49.89
	D								112.89	123.20	31.43
8) Teetotaler	A									106.77	118.29
	D									95.86	114.68
											++
9) Actual Self	A										72.77
	D										119.19
10) Nonbenefitting Alcoholic											

\+ significant increase at $p < .05$ — - significant decrease at $p < .05$ — A = Admission

++ " " $p < .01$ -- " " $p < .01$

+++ " " $p < .001$ --- " " $p < .001$ — D = Discharge

For these reasons, the mean angular distances for 20 Ss, between element pairs at admission and discharge, are presented in Table 4.5 and correlations (cosine of angular distances) in Table 4.6. Repeated measures t-tests were conducted on the angular distance between element pairs formed by combinations of any two of the ten elements at admission and discharge.

f) Interelement correlations in relation to the research hypotheses

The hypotheses formulated in Chapter III, and tested in terms of inter-element distance in the present chapter, may also be reformulated and assessed in terms of interelement correlations. Then, by comparing results of the relevant hypotheses, it is possible to assess systematically the degree to which the relationships between important elements hold for both measures of interelement distance and correlation. Given the previously mentioned complementary nature of the two measures in assessing "construed similarity" any discrepancy in results may provide information in helping to decide whether to reject or accept hypotheses. Furthermore, if results of tests using two partially independent measures are similar, then confirmatory evidence may be said to be stronger.

Thus, it is predicted that:

1) between admission and discharge, the correlation between "actual" and "ideal self" changes from a moderately high negative correlation to a moderately high positive correlation. Reference to Table 4.6 shows this to have been confirmed (Cos = -.38, 0.41 respectively).

2) it is predicted that, at both admission and discharge, "ideal self" and an "average social drinker" have a higher, positive intercorrelation than "ideal self" and "recovering alcoholic" and "ideal self" and "teetotaler".

TABLE 4.6: Cosine of Angular Distances between Element Pairs at Admission (A) and Discharge (D) and Statistical Significance of Changes

		1	2	3	4	5	6	7	8	9	10
1) Ideal Self	A		-.75	.87	.72	.01	.48	-.66	.50	-.38-	-.92
	D		-.74	.81	.48	.12	.61	-.85	.40	0.41	-.97
2) Typical alc.	A			-.69	-.61	-.14	-.27	.41	-.44	.26++	.65
	D			-.66	-.46	-.19	-.39	.64	-.40	-.44	.71
3) Future self	A				.69++	-.05	0.49	-.96	.39	-.33---	-.87
	D				.24	0.16	0.54	-.83	.16	.63	-.82
4) Av. soc. Drkr	A					-.13	.26	-.63	.53	-.34	-.72-
	D					-.26	-.04	-.40	.59	-.09	-.46
5) Social self	A						.02	-.07	-.21	00	-.04
	D						.15	-.17	-.33	.31	-.25
6) Recov. Alc.	A							-.48	.01	-.18	-.54
	D							-.58	-.07	.21	-.65
7) Past self	A								-.40	.06	.64-
	D								-.39	-.55	.85
8) Teetotaler	A									-.29	-.47
	D									-.10	-.42
9) Actual self	A										.30++
	D										-.49
10) Nonbenefitting alcoholic											

\+ = significant increase at $p < .05$ - = significant decrease at $p < .05$
++ = " " $p < .01$ -- = " " $p < .01$
+++ = " " $p < .001$ --- = " " $p < .001$

Findings tend to support those found in relation to element distance: at admission, there was a strong positive relationship between "ideal self" and "average social drinker" (cos= 0.72) and a moderately strong positive relationship between "ideal self" and "recovering alcoholic"(cos=.48), but at discharge, the situation was reversed (cos=.48, 0.61 respectively).

3) it is predicted that at both admission and discharge, "future self" and "recovering alcoholic" will have a higher, positive intercorrelation than "future self" and "average social drinker", "future self" and "teetotaler", and "future self" and "typical alcoholic".

Once again, reference to Tables 4.1 and 4.6 suggests that results resemble the previous findings in relation to element distances viz. at admission the intercorrelation of "future self" and "average social drinker" (cos=0.69) is in fact higher than that of "future self" and "recovering alcoholic" (cos=0.49), but at discharge, the situation is reversed (cos=.24 and .54 respectively)($p < .01$) for the difference between "future self" and "recovering alcoholic" at admission and discharge.) The intercorrelation of "future self" and "teetotaler" is lower than these two at both admission and discharge (cos=.39, .16), also following the patterns of results for element distances.

4) that at admission, "social self" and "typical alcoholic" will have a moderately high, positive intercorrelation, whereas "social self" and "recovering alcoholic", "average social drinker" and "teetotaler" will have moderate negative or negligible intercorrelations.

At discharge, "social self" will correlate positively with "recovering alcoholic", and negatively or negligibly with "typical alcoholic" and "average social drinker".

Reference to the tables suggests that once again, findings are similar to those for element distances for which, at admission, "social self" was seen as not particularly related to any of the three drinking roles, refuting hypotheses. In this instance, intercorrelations between "social self" and the three drinking roles are very low at admission, which also suggests that little relationship is perceived between elements. As predicted, the direction of the intercorrelations between "social self" and "average social drinker" (cos=-.13) and "teetotaler" (-.21) is negative, but, contrary to prediction, so also is the correlation between "social self" and "typical alcoholic" (cos=-.14).

At discharge, in terms of element distance, "social self" was seen as moderately similar to a "recovering alcoholic", and only slightly less like an "average social drinker". Intercorrelations of elements at discharge, though low, confirm this pattern; "social self" and "recovering alcoholic" is 0.15, and "social self" and "average social drinker" is -.26. In this sense, then, hypotheses are confirmed. The relationship between "typical alcoholic" and "social self" is also negative (-.19), as predicted.

However, while the correlations are in the predicted direction, they are relatively small; in other words, while "social self" and "recovering alcoholic" are moderately close in terms of element distance, the pattern of the grades assigned each of the constructs differs.

It is noteworthy that in this instance, knowledge of the direction of correlations (positive for "social self" and "recovering alcoholic" and negative for "social self" and "average social drinker") provides additional evidence (rather than merely backing up previous findings) in helping decide whether the hypothesis should be accepted or rejected.

5) at admission, "actual self" and "typical alcoholic", will intercorrelate positively, whereas "actual self" will intercorrelate negatively or negligibly with "average social drinker", "recovering alcoholic" and "teetotaler". At discharge, however, "actual self" and "recovering alcoholic" will intercorrelate positively, whereas "actual self" and "average social drinker" and "actual self" and "typical alcoholic" will have low or negative correlation.

Correlations at admission are in the predicted direction; "actual self" and "typical alcoholic" correlate positively (cos=.26) whereas negative correlations are found between "actual self" and "recovering alcoholic" (-.18) and "average social drinker (-.34). These findings concur with those of element distance, which showed that "actual self" and "typical alcoholic" were closer together than "actual self" and "recovering alcoholic" which were in turn, closer than "actual self" and "average social drinker".

At discharge, correlations are again in predicted directions between "actual self" and "typical alcoholic"(cos=-.44), "actual self"and "average social drinker" (cos=-.89), and "actual self" and "recovering alcoholic" (cos=.21). In other words, the relationship between "typical alcoholic" and "actual self" has changed from positive to negative whereas the intercorrelation of "actual self" and "recovering alcoholic",from negative to positive.

In sum: intercorrelations of elements generally support the pattern of inter element relationships revealed by studying inter element distances.

However, it is evident that the two partially independent measures may, at times, provide complementary information about the nature of the relationship between an element pair.

SECTION III Relationships between "external" variables and linear distances at admission and discharge, and changes in linear distances between elements.

External Variables

Sixteen variables were obtained from the Background Information Form. These were:

1) Sex
2) Age
3) Marital status (single[1], married or widowed[2], divorced, separated)[3]
4) Place of residence (own home or other)
5) No. of places lived in during the past year
6) Education - 1 no high school
   2 some high school
   3 trade training
   4 advanced technical or incomplete
   5 professional or degree [Abbott, 1979]
7) Employment status, prior to hospitalization
   0 unemployed
   1 housewife, retired
   2 employed
8) Occupational prestige (from Davis, 1974)
9) Ounces ethanol consumed on a typical drinking day
10) Alcohol related behavioural and physical symptoms during month (composite score)
11) Drinking pattern during the preceding month:
   0 never drank
   1 only on special occasions
   2 drank socially
   3 occasional binges
   4 drank daily
12) Days since last drink
13) Self rating of problem severity
   1 no problem at all
   2 a little bit of a problem
   3 a moderate problem
   4 a severe problem
   5 a very severe problem
14) Years of problem drinking
15) Number of previous hospitalizations
16) Psychological wellbeing during preceding month (composite score)

Interrelationships of External Variables

Table 4.7 presents correlations between external variables of ($\pm$) 0.4 or above.

TABLE 4.7: Intercorrelations of external Variables of (±) 0.4 or above

Variable	1 Sex	2 Age	3 Marital Status	4 Where live	5 No. of places in last year	6 Education	7 Employment	8 Prestige (Davis Scale)	9 Oz Ethanol	10 Behavioural and Physical symptoms	11 Pattern severity	12 Last drink	13 Problem severity	14 Yrs of problem drinking	15 No. of hospitalizations	16 Wellbeing
1			-.45						-.61							
2														.64		
3											.40		-.46			
4																
5																
6								-.73								
7								-.56								
8																
9															.47	
10											.65	-.49			.41	-.51
11												-.79				
12																
13														-.42	.43	
14																
15																
16																

The results of Table 4.7 may be interpreted as showing: firstly, that males tended to be divorced (r = -.45) and to consume more ounces of ethanol on a typical drinking day (4 = -.61) than females.

Older people estimated that drinking had been a problem for longer than younger people (r = .64).

Divorced, separated people rated their drinking pattern as more severe (i.e. were more likely to drink daily (r =.40)), but rated their problem as of less severe proportions than single people (r = -.46).

The more places inhabited during the past year, the higher the position on the Davis Scale of Occupational Prestige (r = -.73) and the more socially prestigious was one's job.

Those unemployed immediately prior to admission were lower in position on the Davis scale of occupational prestige than those employed (r=-.56).

The higher the amount of ethanol consumed on a typical drinking day, the more previous hospitalizations for alcohol related problems (r = .47). Furthermore, the more previous hospitalizations, the more behavioural and physical symptoms experienced in the month prior to entering the programme (r = .41), and the more severe the problem was rated (r = .43). In that sense, people perceived the severity of their problem accurately.

The greater the rating of behavioural and physical symptoms, the more likely people were to have drunk daily during the preceding month (r=.65), the less time since the last drink (-.49), and the less the rating of psychological wellbeing during the month prior to hospitalization (r=-.51).

The more severe the prehospitalization pattern, the less time since the last drink (r=-.79).

And finally, the more severe the problem was rated, the less the number of years of problem drinking reported (r = -.42).

a) External Variables and Inter-Element Distances at Admission

Of interest initially was the extent to which mean distances between certain self and drinking role elements could be predicted by (correlated with) any of these sixteen variables.

Table 4.8 presents correlations above (±) 0.3 (i.e.which accounted for at least 9 per cent of the variance) between selected inter element distances and external variables at admission.

The results presented in Table 4.8 may be interpreted as suggesting for each external variable:

1) Sex: males saw their "ideal" and "future selves" as closer to a "recovering alcoholic" and their "future selves" as less like a "nonbenefitting alcoholic" than did females.

2) Age: Older people saw their "ideal" and "future selves" as less like a "recovering alcoholic" and their "future selves" as less like a "typical alcoholic" than did younger people.

3) Marital Status: divorced and separated subjects saw their "actual self" as further from the "ideal self" a "recovering alcoholic" and a "teetotaler", and their "future selves" as further from an "average social drinker" than did single or widowed people.

On the other hand, divorced people saw the "future self" as more like a "nonbenefitting alcoholic" than did single people.

4) Place of Residence: people who owned their own homes saw the "ideal self" as less like an "average social drinker", and a "teetotaler", and also the "future self" as less like a "typical alcoholic" than did those who lived in less permanent accommodation.

TABLE 4.8: Intercorrelations of External Variables and Selected Element Distances at Admission

Element Pairs	Sex 1	Age 2	Marital Status 3	Where live 4	Past year 5	Education 6	Employment Status 7	Prestige (Davis) 8	Oz.ethanol 9	Behav'al and physical symptoms 10	Pattern severity 11	Time since last drink 12	Self rating of severity 13	Length of drinking 14	Previous admissions 15	Wellbeing 16
1 - 4				-.45	.33			-.32								
1 - 6	-.32	.35				-.34		.34						.48		
1 - 8				-.31	.33	.45		-.31								
1 - 9			.45							.34						
2 - 9											.45					
4 - 9			.38	.45				.31		.36		-.34			.31	
6 - 9																
8 - 9			.31	.39						.34	.41	.41	-.42			
10 - 9									-.37	-.33						
3 - 2		.37		-.48		.34		-.47								
3 - 4			.52		.35						.41					
3 - 6	-.36	.44						.42		.35		-.33		.44	.46	
3 - 8																
3 - 10	.33		-.49				.51	-.31	-.36	-.45	-.44					

Key: Element 1 "Ideal self"
2 "Typical alcoholic"
3 "Future self"
4 "Average social drinker"
5 "Social self"
6 "Recovering alcoholic"
7 "Past self"
8 "Teetotaler"
9 "Actual self"
10 "Nonbenefitting alcoholic"

Those who lived in their own homes also construed the "actual self" as more like a "recovering alcoholic" and "teetotaler" than did other patients.

5) Number of places lived in during the past year: the more places lived in, the greater the distances between "ideal self" and "average social drinker" and "teetotaler", and also between "future self" and "average social drinker".

6) Education: the more education recieved, the less the distance between "ideal self" and "recovering alcoholic" and the greater the distance between "ideal self" and "teetotaler" and "future self" and "typical alcoholic".

7) Employment status: those employed prior to admission saw the "future self" as less like a "nonbenefitting alcoholic" than those unemployed.

8) Davis scale of occupational prestige: those with lower status jobs saw the "ideal self" as more like an "average social drinker" and a "teetotaler" and less like a "recovering alcoholic" than did those with higher status jobs.

Those with lower status jobs saw the "actual" and "future self" as less like a "recovering alcoholic" and the "future self" as more like a "typical alcoholic" and a "nonbenefitting alcoholic" than those with higher status jobs.

9) Oz. ethanol: the more ethanol consumed on a typical drinking day, the less the distance between "actual" and "future self" and "nonbenefitting alcoholic".

10) Behavioural and physical symptoms: the more behavioural and physical symptoms in the month prior to admission, the greater the distances between "actual self" and "ideal self", "recovering alcoholic" and "teetotaler", and "future self" and "recovering alcoholic", and the less the distance between "actual" and "future self", "actual self" and "nonbenefitting alcoholic".

11) Severity of pattern: those who drank daily prior to admission saw the "actual self" as less like a "typical alcoholic", and a "teetotaler", and the "future self" as less like an "average social drinker" and more like a "nonbenefitting alcoholic" than those with less severe patterns.

12) Time since last drink: the longer since last drink, the less the distance between "actual self" and "average social drinker", and "future self" and "recovering alcoholic" and the greater the distance between "actual self" and "teetotaler".

13) Self rating of severity: the more severely patients rated their drinking problem, the less they saw themselves like a "teetotaler".

14) Length of Problem Drinking: the longer the drinking history, the less the distance between "ideal self" and "future self" and "recovering alcoholic".

15) Previous admissions: the more previous admissions, the greater the distance between "actual self" and "average social drinker" and "future self" and "recovering alcoholic".

In sum: at admission, those in less favourable situations - (e.g. female, divorced, being in impermanent accommodation, with less education, unemployed, of low occupational prestige, consuming more ethanol daily, experiencing more symptoms, with longer drinking histories) - seemed generally to also see themselves and the future in a more negative light (i.e. as having a greater distance between "actual" and "future self" and 'desirable' drinking roles) than did other subjects.

b) External Variables and Interelement Distances at Discharge

Table 4.9 present correlations (±.3) between selected element distances at dicharge and external variables for the 20 subjects present at discharge.

It is important to note that this analysis is not strictly comparable to the previous one in that four subjects left treatment between admission and discharge.

TABLE 4.9: Intercorrelations of External Variables and Selected Element Distances at Discharge

Element Pair	Sex 1	Age 2	Marital Status 3	Where live 4	Past year 5	Education 6	Employment Status 7	Davis Scale 8	oz. ethanol 9	Behav'al and physical sympt. 10	Pattern severity 11	Time since last drink 12	Self rating of severity 13	Length of drinking 14	Previous admissions 15	Wellbeing 16
1 - 4	.40		-.34										.34		0.45	-.40
1 - 6						-.42	-.47				.45	-.45				
1 - 8						.36			-.39				.34		.32	
1 - 9							-.33		-.34		.41					
2 - 9	-.40						.36		.35							
4 - 9									-.32		.39					
6 - 9									-.31							.43
8 - 9			.34						-.51		.39			-.32		
10 - 9									.35							
3 - 2							.55							.35		
3 - 4	.42	-.52							-.35					-.30		
3 - 6						-.52							-.37	.31		.46
3 - 8			.36						-.40							
3 - 10							.37									

Elements:
1 "Ideal self"
2 "Typical alcoholic"
3 "Future self"
4 "Average social drinker"
5 "Social self"
6 "Recovering alcoholic"
7 "Past self"
8 "Teetotaler"
9 "Actual self"
10 "Nonbenefitting alcoholic"

Table 4.9 may be interpreted as showing for each of the external variables:

1) Sex: females saw their "ideal" and "future selves" as less like a "recovering alcoholic" than males, and their "actual selves" as more like a "typical alcoholic."

2) Age: older people saw the "future self" as more like an "average social drinker" than did younger people.

3) Marital status: divorcees and those separated saw a "teetotaler" as further from the "actual" and "future self" and the "ideal self" as more like an "average social drinker" than did single or married people.

6) Education: the more education received by patients, the more they saw the "ideal" and "future self" like a "recovering alcoholic", and the less the "ideal self" was seen as like a "teetotaler". Conversely, the less education received the greater the distance between the "ideal" and "future self" and a "recovering alcoholic".

7) Employment status: patients unemployed at admission saw their "ideal self" as less like the "actual self" and a "recovering alcoholic" at discharge than those employed; unemployed patients also saw the "actual" and "future self" as more like a "typical alcoholic", and the "future self" as more like a "nonbenefitting alcoholic" than those employed.

9) Ounces ethanol on a typical drinking day: the more ounces of ethanol patients reported that they consumed, the less the distances, at discharge between "ideal self" and a "teetotaler", and "actual self"; between "actual self" and an"average social drinker", a "recovering alcoholic" and a "teetotaler"; and between "future self" and an "average social drinker" and a "teetotaler".

The more ounces of ethanol consumed, the greater the distance between "actual self" and "typical alcoholic" and "actual self" and "nonbenefitting alcoholic".

11) Severity of pattern: the more severe the drinking pattern prior to hospitalization, the less patients saw their "ideal selves" as like a "recovering alcoholic", and the "actual self" as like the "ideal self", an "average social drinker" and a "teetotaler".

12) Time since last drink: the longer time since the last drink, the less the distance between "ideal self" and "recovering alcoholic". Conversely those drinking relatively close to admission saw the "ideal selves" as relatively unlike a "recovering alcoholic" at discharge.

13) Self rating of problem severity: the more severely the drinking problem was construed by patients, the greater the distance between "ideal self" and "average social drinker", and "ideal self" and "teetotaler", and the less the distance between "future self" and "recovering alcoholic".

14) Length of problem drinking: the longer the drinking history, the less the distance between "actual self" and "teetotaler", and between "future self" and "average social drinker", and the greater the distance between "future self" and "recovering alcoholic", and "typical alcoholic".

15) Number of previous admissions: the more previous admissions, the less patients construed their "ideal selves" as like an "average social drinker" and a "teetotaler".

16) Psychological wellbeing: patients who reported more 'positive' feelings before admission, saw their "ideal selves" as more like an "average social drinker" and their "actual" and "future selves" as less like a "recovering alcoholic" than patients who reported less 'wellbeing'.

In sum: again, patients who were in less favourable positions (female, less education, unemployed at admission, rating their problem as more severe, drinking until admission) at discharge generally saw the "actual", "ideal", "future selves" as less like a "recovering alcoholic" than other patients.

A notable exception is the variable "ounces of alcohol consumed on a typical drinking day": the more consumed the more patients saw themselves like their "ideal selves" and a "recovering alcoholic" at discharge. Also, subjects who rated their problem as more severe at admission tended to see the "future self" as more like a "recovering alcoholic" than subjects who rated the problem as less severe.

c) External Variables and Changes in Inter Element Distances

Table 4.10 presents correlations, above or equal to ± .3, between external variables and changes in interelement distances (calculated by subtracting grid 2 from grid 1), for the 20 subjects who were present at both admission and discharge.

Relationships between changes and external variables are as follows:

1) Sex: overall, females appeared to change more than males between admission and discharge. Females changed more than males in their perception of the relationships between "ideal self" and "average social drinker", "teetotaler" and "actual self', "actual self" and "average social drinker" and "teetotaler", and "future self" and "average social drinker" and "teetotaler".

2) Age: older people changed less than younger people in their perception of the relationship between "future self" and "average social drinker".

3) Marital Status: divorcees changed less than single people in their perception of the relationship between "ideal" and "future self" and "average social drinker".

TABLE 4.10: Intercorrelations of External Variables and Changes in Selected Interelement Distances

Element Pairs / Variable	Sex 1	Age 2	Marital Status 3	Where Live 4	Number places 5	Education 6	Employment 7	Davis Scale 8	oz.ethanol 9	Behav'al and physical sympt 10	Patterns of severity 11	Time since last drink 12	self rating of severity 13	yrs of problem drinking 14	Previous admissions 15	Wellbeing 16
1 - 4	.43		-.49	.41				.35							.54	-.57
1 - 6												-.32		-.38		-.33
1 - 8	.37			.40												
1 - 9	.37						-.36		-.39		.38			-.32		
2 - 9							.36				-.40					
4 - 9	.30				.34				-.37					-.44	-.40	
6 - 9													-.31			
8 - 9	.34			-.34	.31	.34		-.31	-.64					-.34		
10 - 9									.62							
3 - 2							.31							.33		
3 - 4	.73	-.68	-.32											-.40		-.55
3 - 6										-.47			-.33		-.49	.38
3 - 8	.35															
3 - 10				-.34					.57							

4) Place of Residence: people living in their own homes i.e. living in stable accommodation, changed less than others in the way they saw "ideal self" and "average social drinker" and "ideal self" and "teetotaler", but more than others in their perception of the relationship between "actual self" and "teetotaler" and "nonbenefitting alcoholic".

5) Places lived in during the past year: the more places lived in, the greater the change in distance between "actual self" and "average social drinker" and "teetotaler".

6) Education: the more education, the greater the change in distance between "actual self" and "teetotaler". Conversely the less education, the less change in distance between these elements.

7) Employment status: those subjects who were unemployed at admission changed less in terms of perception of the "actual" and "ideal self" than those who were employed.

Those who were employed at admission changed more in their perceptions of relationship between "typical alcoholic" and "actual self" and "future self" than those who were unempooyed.

8) Davis scale of occupational prestige: the less "prestigious" the job the less change in distance between "actual self" and "teetotaler" and the more change in distance between "ideal self" and "average social drinker".

9) Ounces ethanol: the more ounces of ethanol consumed on a typical drinking day, the less change in distance between "actual self" and "ideal self", a "teetotaler" and "social drinker"; and the more change in distance between "actual self" and "future self" and a "nonbenefitting alcoholic".

10) Behavioural and physical symptoms: the more symptoms reported, the less change in distance between "future self" and "recovering alcoholic".

11) Severity of Pattern: the more severe the drinking pattern prior to hospitalization, the greater the change in distance between "actual" and "ideal self" and the less the change between "actual self" and "typical alcoholic".

12) Time since last drink: the more time since last drink, the less change in distance between "ideal self" and "recovering alcoholic".

13) Self rating of severity: the more severe the drinking problem was rated, the less the change between "actual" and "ideal self" and "recovering alcoholic"

14) Length of problem drinking: the greater the drinking history, the less the change in distance between "ideal self" and "recovering alcoholic"; "actual self" and "ideal self", "average social drinker", "teetotaler" and "future self" and "average social drinker" and the less the change in distance between "future self" and "typical alcoholic".

15) Number of previous admissions: the more previous admissions, the greater the change in distance between "ideal self" and "average social drinker" and the less the change between "actual self" and "average social drinker" and "future self" and "recovering alcoholic".

16) Psychological wellbeing: the greater the indication of psychological wellbeing in the month prior to admission, the less change in distance between "ideal self" and "average social drinker"; "future self" and "average social drinker" and "ideal self" and "recovering alcoholic"; and the less change in distance between "actual self" and "average social drinker" and "future self" and "recovering alcoholic".

It is difficult to identify a clear pattern of change related to particular variables.

However, those who were in less favourable situations at admission (divorced or separated, less well educated, unemployed, having more behavioural and physical symptoms, rating their problem as more severe

with more previous admissions and a longer history) showed a tendency to change less in terms of the construed relationship between the "actual self" and "ideal self","future self" and a "recovering alcoholic" than others.

OUTCOME

Out of the 24 subjects who were interviewed soon after admission, adequate outcome data are available for 23, three months following discharge. 'Adequate' in this instance, means either a report by the patient on his or her drinking at the time of follow-up, corroborated by a minimum of one referee, or information from both referees. The 23 follow-up subjects included all four who left treatment against advice.

Of the 23 subjects who were traced at three months following discharge, seven had 'relapsed' (defined as having consumed any alcohol since discharge), and 16 were abstinent. The seven who had consumed alcohol since discharge included three of the four subjects who did not complete therapy.

a) External Variables and Outcome

Although numbers are very small, the relationship was investigated between "external variables" and outcome, by means of a series of Pearson Product Moment correlation coefficients. In this way, the prediction was tested that patients who remained abstinent would be those who were 'higher functioning' at admission - i.e. who were of higher social stability (employed living in one or two places in the preceding year, married) of higher socio-demographic status (according to education and occupational prestige) and with less severe drinking problems.

Table 4.11 presents correlations equal to $\pm.02$, and outcome.

TABLE 4.11: Correlations of ± 0.2 and above, between External Variables and Outcome

	Variable	Correlation	p (1 tailed)
1	Gender	0.22	0.16
4	Place of residence	0.31	0.08
10	Alcohol related behavioural and physical symptoms	-0.35	0.05
13	Self rating of problem severity	-0.48	0.01

In other words: females were slightly more likely to have a better outcome than males (though only 4-5% of total variance was accounted for).

Those who lived in rented accommodation rather than their own homes were more likely to be abstinent (10 per cent of the variance accounted for).

The less alcohol related behavioural and physiological symptoms experienced during the month preceding admission the more likely subjects were to be abstinent after three months (12 per cent of the variance accounted for). This finding provides some confirmation of hypotheses.

A self evaluation of less severe drinking problems was more likely to be associated with abstinence (23 per cent of the variance accounted for).

b) Interelement Distances at Discharge and Outcome

The relationship was investigated, by means of t-tests, between inter-element distances at discharge and outcome. Once again, numbers were very small: of the 20 subjects present at discharge, one was not included because he was not traced; four were defined as 'relapsed', and 15 were abstinent.

Because of the small sample size, standard deviations are large and results must be interpreted very cautiously.

Table 4.12 presents mean interelement distances for abstinent and relapsed groups at discharge. The criterion for inclusion is that an obtained difference between groups had a probability of occurrence of 0.1 or less.

TABLE 4.12: Mean Interelement Distances at Discharge for Abstinent (N=15) and Relapsed (N=4) groups

Gp 1 - relapsed

Gp 2 - abstinent

Element Pair		Mean	sd	2-tailed prob.
1 - 6	Gp 1	0.91	0.37	0.03
	2	0.52	0.28	
1 - 7	1	1.13	0.67	0.02
	2	1.66	0.26	
1 - 9	1	1.31	0.49	0.00
	2	0.61	0.27	
2 - 7	1	1.05	0.14	0.03
	2	0.69	0.28	
3 - 4	1	0.78	0.13	0.02
	2	0.54	0.17	
3 - 6	1	0.74	0.32	0.08
	2	0.42	0.30	
3 - 7	1	1.09	0.58	0.09
	2	1.43	0.27	
3 - 9	1	0.77	0.37	0.00
	2	0.39	0.09	
3 - 10	1	1.25	0.42	0.06
	2	1.59	0.27	
4 - 9	1	0.90	0.33	0.00
	2	0.51	0.14	
6 - 9	1	0.89	0.43	0.01
	2	0.49	0.19	
7 - 10	1	1.01	0.55	0.02
	2	0.50	0.31	
8 - 9	1	0.95	0.34	0.02
	2	0.58	0.23	
9 - 10	1	0.88	0.23	0.02
	2	1.34	0.34	

Given that all interelement distances significantly related to outcome include at least one 'self' element, Heather et al's [1975] finding that perception of alcohol related rather than self related roles was important in outcome is not replicated.

Table 4.12 suggests that subjects who subsequently drank saw themselves on average, at discharge, differently from those who remained abstinent.

Specifically, subjects who later drank saw their "ideal", "actual" and "future self" as less like a "recovering alcoholic" ($p < .03$, $.01$, $.08$ respectively) and the "future" and "actual self" as less like an average social drinker ($p < .02$, $.00$ respectively) than did abstinent subjects. The "future self" was also seen as more like a"nonbenefitting alcoholic" ($p < .06$). Moreover, subjects who were later to relapse also saw the "actual self" as less like the "ideal self" ($p < .00$) and "future self" ($p < .00$) a "teetotaler" ($p< .02$) and more like a "nonbenefitting alcoholic" ($p <.02$) than did those who subsequently remained abstinent.

The "past self" was seen by relapsed subjects as less like a "non-benefitting alcoholic" ($p < .02$) and more like the "ideal self" ($p < .02$) than by abstinent subjects.

In other words, it seems that at discharge, subjects who were later to relapse identified to a lesser extent than abstinent subjects, with "positive" drinking roles and to a greater extent with some "negative" drinking roles. Self esteem of'relapsers' was also lower than that of subsequent abstainers.

Findings also suggest that relapsers distinguished less than abstainers between "past self", "future self" and "actual self".

This pattern of results confirms the hypothesis which states that "abstainers" will identify more closely with "ideal self" and "recovering alcoholic" at discharge. However, because of the small number of subjects who relapsed, results must be interpreted cautiously.

SECTION IV

Case Studies

Two case studies are presented which illustrate the nature of change in terms of interrelationships of elements and constructs, for individual patients, and which demonstrate the complexity and utility of the information yielded by the grid used idiographically.

First Case Study: Dacre [1]

Dacre [2] was a 30 year old male, legally separated from his wife. At the time of admission to Queen Mary Hospital, he was boarding privately, but he had lived in three places during the preceding twelve months. He had been unemployed for ten and a half months prior to admission, and his last job had been as a rubbish collector.

Dacre had been drinking an average of eleven ounces of ethanol daily (about eight pints of beer and one to two bottles of wine) up to admission, and during the preceding month had regularly[3] become drunk during daily activities, very often missing meals because of his drinking, sometimes experiencing such physical symptoms as the 'shakes,' blackouts, "dry heaves", severe hangover and difficulty sleeping. He stated that, during that period, he quite often felt tense, very often felt sad, and only rarely felt relaxed and in control of his life.

Dacre estimated that his drinking had been a problem for ten years; at present, he saw it as a 'moderate' rather than 'severe' problem, and considered that he had some control over his alcohol consumption.

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[1] Pseudonym

[2] Initial information from the Background Information Form (see Appendix 2).

[3] See BIF for scales on which these are estimated

The present admission to Queen Mary was his first experience of treatment for alcohol-related problems.

The following ten bipolar constructs were elicited:

TABLE 4.13: 10 Bipolar Constructs Elicited from Dacre

A	gets along with people doesn't get along with people
B	honest puts up a front
C	nicely natured bad tempered
D	happy miserable
E	tough weak
F	has willpower and doesn't use a crutch has no willpower and uses a crutch
G	independent relies on others
H	sociable aloof
I	trustworthy untrustworthy
J	loved unloved

Dacre's First Grid

The hypothesis that the grid is merely an array of random numbers was tested by comparing the amount of variance accounted for by the first principle component (68.7) with that of the mean amount of variance of 100, 10x10 Quasis (random grids) (27.96; range, 36.88 to 22.08). Comparison of the two shows that the first component of the experimental grid carries much more variation, and so the hypothesis that this grid contains psychologically meaningful material is supported.

TABLE 4.14: Dacre's First Grid. Ratings of the Elements in terms of the Constructs

	ELEMENTS									
CONSTRUCTS	1 Ideal Self	2 Typical alcoholic	3 Future self	4 Average social drinker	5 Social self	6 Recovering alcoholic	7 Past self	8 Teetotaler	9 Actual self	10 Nonbenefitting alcoholic
A	5	2	3	5	2	2	1	4	2	1
B	5	2	2	4	1	2	1	4	2	2
C	5	3	3	4	1	2	1	4	2	2
D	5	3	3	4	4	4	2	4	3	2
E	4	2	3	3	4	3	2	3	3	3
F	4	2	4	4	3	2	3	3	4	2
G	4	2	3	3	4	2	4	3	4	2
H	4	4	3	4	2	4	2	4	3	3
I	5	2	4	4	3	3	4	4	4	2
J	5	4	3	4	3	3	2	4	3	3

Correlations between the constructs are given in Table 4.15.

TABLE 4.15: Correlations between the Constructs

Construct		B	C	D	E	F	G	H	I	J
A	gets along with people vs. doesn't get along	.91	.90	.79	.47	.62	.20	.62	.65	.81
B	honest vs. puts up a front		.95	.68	.37	.42	.05	.79	.55	.88
C	nicely natured vs. bad tempered			.62	.25	.41	-.07	.80	.47	.91
D	happy vs. miserable				.69	.34	.21	.53	.47	.74
E	tough vs. weak					.38	.38	.00	.34	.40
F	has willpower vs. has none						.71	-.05	.85	.24
G	independence vs. relies on others							-.51	.72	-.06
H	sociable vs. aloof								.69	.77
I	trustworthy vs. untrustworthy									.27
J	loved vs. unloved									

The first three constructs are clearly interlinked: people who get along with others (A) are honest rather than putting up a front (B), are nicely natured (C), and also tend to be loved (indicated by intercorrelations with construct J). To a lesser extent, the same people are sociable rather than aloof (construct H). Furthermore, being independent (G) is quite strongly associated with being trustworthy(I).

On the other hand, Dacre saw no association between being tough (E) and being sociable (H); or between having willpower (F) and being sociable, though to a certain extent, being independent (G) implied aloofness or a lack of sociability (H).

Table 4.16 gives the sums of squares and percentages of the total variation for the elements. Salience of the elements can be inferred [Slater, 1977].

TABLE 4.16: Sums of Squares and Percent Variance Accounted for by Each Element

Element		Sum of Squares	As Percentage
1	Ideal self	27.3	27.3
2	Typical alcoholic	7.5	7.5
3	Future self	1.9	1.9
4	Average social drinker	11.5	11.5
5	Social self	9.9	9.9
6	Recovering alcoholic	4.9	4.9
7	Past self	15.7	15.7
8	Teetotaler	7.1	7.1
9	Actual self	3.5	3.5
10	Nonbenefitting alcoholic	10.5	10.5

As would be expected, the "ideal self" is the element graded most consistently away from the mean of construct scales, while "future self" and "actual self" are seen as not scored particularly extremely on any construct, i.e. are seen as not having - or lacking - any of the construct characteristics to a marked degree

Table 4.17 provides the standardized distances between elements.

TABLE 4.17: Distances between Element Pairs

Element	2	3	4	5	6	7	8	9	10
1	1.47	1.14	0.56	1.57	1.42	1.85	0.64	1.31	1.72
2		0.77	1.06	0.97	0.48	1.04	0.88	0.85	0.52
3			0.74	0.74	0.67	0.82	0.67	0.37	0.82
4				1.27	1.04	1.49	0.30	0.97	1.33
5					0.74	0.70	1.16	0.56	0.82
6						0.93	0.85	0.70	0.56
7							1.36	0.60	0.79
8								0.88	1.14
9									0.79
10									

"Ideal self" is very remote from "social self", "past self" and "non-benefitting alcoholic", and moderately remote from "actual self", "recovering alcoholic" and a "typical alcoholic". On the other hand, the "ideal self" is quite closely associated with both an "average social drinker" and a "teetotaler". The "future self" is seen as very close to the "actual self", and as being slightly closer to a "recovering alcoholic" and a "teetotaler", than an "average social drinker". The connection with all three of these roles is not especially strong, however. The "actual self" is also closer to a "recovering alcoholic" and, in fact, to a "nonbenefitting alcoholic" than an "average social drinker".

In other words, Dacre's "ideal self" is close to an "average social drinker", and remote from a "recovering alcoholic". However, his "future" and "actual self" are closer to a "recovering alcoholic" than an "average social drinker". As this state of affairs would imply, there is a large discrepancy between his "ideal" and "actual selves".

TABLE 4.18: Interelement Correlations (expressed as cosines)

Element	2	3	4	5	6	7	8	9	10
1	-.46	.02	0.90	-0.54	-0.55	-0.80	0.91	- .37	-0.83
2		-0.47	-0.32	-0.21	0.61	-0.04	-0.16	-0.49	0.68
3			0.15	-0.02	-0.52	0.24	-0.13	0.47	-0.29
4				-0.68	-0.50	-0.81	0.92	-0.47	-0.77
5					0.20	0.59	-0.77	0.54	0.27
6						0.92	-0.34	-0.31	0.59
7							-0.86	0.76	0.48
8								-0.64	-0.66
9									0.02
10									

Element

Table 4.18 shows that "ideal self" and "average social drinker" and "ideal self" and "teetotaler" have a strong positive relationship, whereas "ideal self" and "recovering alcoholic" are negatively related. "Actual self", while in terms of element distance is closer to "recovering alcoholic" than an "average social drinker" or "teetotaler", is in fact, negatively associated with all three. "Future self", while positively related to "actual self", is negatively related to both "recovering alcoholic" and "teetotaler".

These results support those for element distance, that Dacre at admission does not really see himself in the present or future as particularly like any of the drinking roles. It is evident, however, that he must adopt one.

It seems then, that Dacre is in a quandary, in that to see himself as a "recovering alcoholic" - an aim of the Queen Mary programme - is to see himself in a negative light. On the other hand, the role closest to his "ideal self", an "average social drinker" is a role, according to the teachings of the programme, which is unavailable to him.

Dacre's Second Grid

The hypothesis that this grid is an array of random numbers was tested once again by comparing percent variance accounted for by the first component with that of the mean of the 100 10x 10 Quasis. Comparison shows that once again, the first component of the experimental grid carries much more variance and so the hypothesis can be accepted that this grid contains psychologically meaningful material.

TABLE 4.19: Dacre's Second Grid

	Elements									
	1	2	3	4	5	6	7	8	9	10
	Ideal Self	Typical Alcoholic	Future Self	Average Social Drinker	Social Self	Recovering Alcoholic	Past Self	Teetotaler	Actual Self	Nonbenefitting Alcoholic
A	3	3	2	2	3	3	2	5	3	1
B	3	2	2	4	2	2	1	4	3	1
C	3	2	2	4	3	3	1	4	3	2
D	4	3	3	4	3	3	2	4	2	1
E	4	2	3	4	3	2	2	4	3	2
F	5	2	4	4	3	2	3	4	3	1
G	4	2	3	4	5	3	5	4	4	3
H	4	3	3	4	3	2	2	4	3	2
I	4	3	3	4	3	2	2	4	3	1
J	5	2	2	4	3	3	2	4	3	1

Constructs

TABLE 4.20: Correlations between Constructs

	Construct	B	C	D	E	F	G	H	I	J
A	gets along with people vs doesn't get along	.61	.56	.60	.44	.38	.12	.51	.60	.55
B	honest vs. puts up a front		.89	.77	.87	.66	.13	.89	.87	.74
C	nicely natured vs. bad tempered			.67	.76	.42	.14	.72	.67	.71
D	happy vs miserable				.75	.76	.08	.82	.89	.89
E	tough vs weak					.86	.36	.93	.88	.81
F	willpower vs. no willpower						.42	.80	.85	.77
G	independent vs relies on others							.14	.20	.32
H	sociable vs aloof								.96	.78
I	trustworthy vs untrustworthy									.80
J	loved vs unloved									

Several pairs of constructs are strongly associated: being honest with being nicely natured and with being sociable; being happy with being social, trustworthy and loved; being tough with being sociable, trustworthy and having willpower.

Table 4.21 presents sums and squares and percentages of the total variation for the elements.

TABLE 4.21: Sums of Squares and Percent Variance Accounted for as by Each Element

	Element	Sum of Squares	As Percentage
1	Ideal Self	13.71	14.6
2	Typical alcoholic	6.31	6.72
3	Future Self	3.11	3.31
4	Average Social Drinker	11.71	12.47
5	Social Self	2.11	2.25
6	Recovering Alcoholic	4.71	5.02
7	Past Self	11.10	11.83
8	Teetotaler	16.51	17.58
9	Actual Self	2.11	2.25
10	Nonbenefitting Alcoholic	22.51	23.97

"Nonbenefitting alcoholic" and a "teetotaler" are the elements graded most consistently away from the midpoint of the construct scales, whereas "future self" and "social self" and "actual self" vary little from the means, i.e. are seen as not having very little or very much of any particular characteristic.

Table 4.22 presents the distances between element pairs.

TABLE 4.22: Distances between Element Pairs

Elements	Element 2	3	4	5	6	7	8	9	10
1	1.22	0.93	0.49	0.82	1.16	1.37	0.62	0.98	1.81
2		0.58	1.16	0.79	0.49	0.88	1.22	0.54	1.03
3			0.90	0.62	0.70	0.73	1.12	0.54	1.03
4				0.79	1.10	1.39	0.66	0.85	1.69
5					0.62	0.73	0.88	0.44	1.16
6						0.79	1.16	0.62	0.88
7							1.53	0.79	0.79
8								0.93	1.88
9									1.03
10									

"Ideal self" and "nonbenefitting alcoholic", and "teetotaler" and "non benefitting alcoholic", are seen as remote from each other, while "ideal self" and "past self" are moderately far apart of the drinking roles,"ideal self" and "average social drinker" remain closest, with "ideal self" and "teetotaler" moderately close and "ideal self" and "recovering alcoholic" not particularly related at all. The "actual self" and "future self" are closest to "typical alcoholic" of the drinking roles, and next closest to a "recovering alcoholic" (and these two drinking roles in turn are close together), though the relationship is not particularly strong. "Actual self" and "average social drinker" are also not strongly related. The "actual self" and "social self" are seen as very close.

So, in other words, at discharge Dacre still saw his ideal self as closest to an "average social drinker", but distant from a "recovering alcoholic" and his "actual self" as moderately close to a "recovering alcoholic" but quite distant from an "average social drinker". His"actual" and "future selves" remain closest to a "typical alcoholic".

Table 4.23 presents interelement correlations expressed as cosines.

TABLE 4.23: Interelement Correlations (as cosines)

Element	Element 2	3	4	5	6	7	8	9	10
1	-.59	-.09	.81	.17	-.60	-.57	0.74	-.39	-.91
2		.27	-.58	-.63	.55	.09	-.40	-.08	0.50
3			-.18	-.54	-.29	.27	-.46	-.15	.22
4				.08	-.58	-.75	.69	-.12	-.77
5					-.19	.22	.22	.05	-.25
6						.20	-.38	-.19	.55
7							-.79	.02	.65
8								.05	-.91
9									.19
10									

Once again"ideal self" has a strong, positive relationship with "average social drinker" and "teetotaler", but a strong negative relationship with "recovering alcoholic", which in turn is positively related to a "typical alcoholic" and a "nonbenefitting alcoholic". The "actual self" remains negatively related to the "ideal self" and also still bears little relationship to any of the drinking roles.

So, at discharge, Dacre's quandary remains: by still seeing a 'recovering alcoholic" in a relatively negative light, but by appearing to realise that the role closest to his ideal self (average social drinker) is unavailable, he is not allowing himself the option of an 'honourable' course of action after discharge, viz. to adopt the role of "recovering alcoholic", evaluated positively.

Differences between Dacre's Two Grids

The differences between these two grids record the changes Dacre reports in his appraisal of the elements, in terms of the constructs, between the first and second occasions.

The output from DELTA begins by listing the differences between means and variances of the constructs, taking the first occasion from the second.

The most marked changes in means are presented in Table 4.24

TABLE 4.24: Changes in Construct Means

	Construct	Mean Change	Variation of diff.
D	Happy - miserable	+.5	2.5
G	Independent - relies on others	-.6	2.4
I	trustworthy - untrustworthy	+.6	6.4
J	loved - unloved	+.6	6.4

Overall then, the construct means do not change greatly between occasions.

The general degree of correlation between the two grids is 0.63.

The correlations between the applications of constructs on both occasions are:

TABLE 4.25: Correlations between Constructs

Construct	r^2	s.e.
A C1	.36	.47
B 2	.76	.28
C 3	.53	.37
D 4	.86	.17
E 5	.57	.23
F 6	.84	.21
G 7	.84	.16
H 8	.50	.26
I 9	.63	.27
J 10	.73	.27

In other words, constructs which changed most in the pattern of their applications to elements are C1 - gets along with people and doesn't get along; C3 - nicely natured and bad tempered; C5 - tough and weak, and C8 - sociable and aloof.

Table 4.26 shows changes referring to elements in terms of the sums of squares of the percentage variance accounted for by the differences between grids.

The changes that have occurred are spread over the "ideal self" and "average social drinker". The evaluation of the "future self" and the "past self" has changed relatively little.

TABLE 4.26: Changes in Evaluation of the Elements

Element		Total	SS	As Percentage
1	Ideal Self	-5.4	13.84	19.33
2	Typical Alcoholic	-0.4	7.64	10.67
3	Future Self	-2.4	3.04	4.25
4	Average social drinker	0.6	11.44	15.96
5	Social Self	5.6	9.84	13.74
6	Recovering alcoholic	-0.4	6.64	9.27
7	Past Self	1.6	3.84	5.36
8	Teetotaler	5.6	4.44	6.20
9	Actual Self	0.6	5.24	7.32
10	Nonbenefitting alcoholic	-5.4	5.64	7.88

Reference to the admission and discharge grids shows that the "ideal self" has been downgraded in terms of most of the constructs which accounts for the fact that in terms of element distance, "ideal self" is close to all roles excluding nonbenefitting alcoholic at discharge.

Outcome

At discharge, Dacre was asked to state his intentions in terms of drinking when he left hospital. He stated that he intended to totally abstain but was not confident at all about being able to do that. He felt that he wouldn't be able to cope with people or life when he left hospital.

When contacted three months after discharge, Dacre had in fact relapsed, having begun drinking the day after discharge. He described his pattern as one of "occasional binges".

It may be hypothesised - post hoc - that relapse may have been predicted from two factors, firstly the lack of change in

construct-element relationships. Dacre had been drinking up to the day of admission; the only major change in the way he viewed the world was a drop in his view of his "ideal self" and such an alteration may be construed as one of lowered aspirations - not necessarily a change for the better.

Secondly, Dacre's relative lack of change meant that he had no positively defined alcohol-related role to adopt. It may be, in fact, that in the end he decided to attempt to adopt the role closest to his "ideal self" - that of the "social drinker."

Second Case Study: Jake[1]

Jake was a 56 year old married male. At the time of admission he had been employed as a tree felling contractor for 3 months but for four years prior to that he had held a fairly responsible administrative position within the social services for his local area. Jake had attended university for a short time thirty years previously.

Jake had been drinking approximately 15 ounces of ethanol daily (1.5 bottles of vodka) right up to admission. During the month prior to his hospitalization he had very frequently drunk on awakening, at work, and alone. He reported experiencing all the physical symptoms such as the shakes, memory lapses, dry heaves, difficulty sleeping, hangovers, nervousness and quite often, feelings of sadness.

Jake estimated that his drinking had been a problem for 20 years; at present he saw it as a problem of very severe proportions, over which he had no control at all. He had seven prior admissions to hospitals or clinics for alcohol-related problems. In sum, Jake was a chronic alcoholic.

---

[1] Pseudonym

The following ten bipolar constructs were elicited:

TABLE 4.27: 10 Bipolar Constructs Elicited from Jake

A) having self respect
lacking in self respect

B) leads a contented life
leads a miserable life

C) faces up to his problems
avoids facing problems

D) respected by others
not respected by others

E) intelligent
dense

F) tries to improve his life
doesn't try to improve his life

G tolerant
intolerant

H) easygoing
straitlaced

I) loved by those close
dispised by those close

J) stalwart
hopeless

Jake's First Grid

The amount of variance accounted for by the first principal component (71.45) was compared with the mean amount accounted for by the first component of 100 10x10 Quasis (27.96); and it was concluded that Jake's grid contains psychologically meaningful information.

TABLE 4.28: Jake's First Grid

Constructs	Ideal self	Typical alc.	Future self	Av.soc.dr.	Social self	Recov. alc.	Past self	Teetotaler	Actual self	Nonbenefitting alcoholic
	1	2	3	4	5	6	7	8	9	10
A	4	2	4	4	1	1	1	4	1	2
B	4	1	4	4	1	1	1	4	1	2
C	5	2	5	5	1	1	1	5	1	2
D	4	1	4	4	1	2	1	4	1	1
E	4	3	4	3	4	3	4	4	1	1
F	5	4	5	4	1	5	1	4	1	1
G	4	3	4	4	1	3	4	4	1	1
H	5	4	5	4	5	3	5	2	3	4
I	5	4	5	4	1	2	4	4	4	2
J	4	3	4	4	1	3	2	3	1	1

Correlations between the constructs are given in Table 4.29.

TABLE 4.29: Correlations between the Constructs

	Construct	B	C	D	E	F	G	H	I	J
A	having self respect vs no self respect	.98	.99	.93	.36	.65	.65	.00	.63	.77
B	contented life vs miserable life		.96	.95	.35	.59	.61	.00	.58	.72
C	faces up to problems vs doesn't face up			.95	.39	.66	.66	.00	.64	.78
D	respected by others vs. not respected				.48	.75	.72	-.07	.58	.84
E	intelligent vs dense					.45	.68	.35	.24	.54
F	tries to improve life vs. doesn't try to improve life						.71	-.11	.47	.92
G	tolerant vs. intolerant							.08	.69	.87
H	easygoing vs. straitlaced								.08	.08
I	loved by others vs. despised									.65
J	stalwart vs. hopeless									

Table 4.29 shows that constructs relating to having self respect leading a content life, facing up to problems and having the respect of others are all highly interrelated, but are not related to being easygoing.

Table 4.30 shows that the amount of variance accounted for by the elements is spread evenly over several: "ideal self", "future self", "social self", "past self", "teetotaler", "actual self" and "nonbenefitting alcoholic". In fact, there is not one element that stands out as being graded more consistently than the others at extreme ends of construct scales. Reference to the original grid shows that in fact all elements except typical alcoholic are graded quite extremely.

TABLE 4.30: Sums of Squares and Percent Variance Accounted for by Each Element

	Element	Sum of Squares	as Percentage
1	Ideal self	24.0	12.4
2	Typical alcoholic	5.4	2.8
3	Future self	24.0	12.4
4	Average social drinker	17.4	7.0
5	Social self	27.2	14.0
6	Recovering alcoholic	14.0	7.2
7	Past self	16.6	8.6
8	Teetotaler	20.4	10.5
9	Actual self	24.8	12.8
10	Nonbenefitting alcoholic	19.8	10.2

Table 4.31 provides the linear distances between elements

Jake's "ideal" and "actual selves" are very distant at admission as are his "ideal" and "social selves". He sees his "ideal self" and his "future self" as very close to an "average social drinker"; whereas his "actual self" he construes as very like a "nonbenefitting alcoholic". A "recovering

TABLE 4.31: Linear Distances between Element Pairs

Elements	2	3	4	5	6	7	8	9	10
1	.93	.00	.31	1.47	1.12	1.22	0.53	1.45	1.35
2		.93	.88	.84	.46	.59	.93	.75	.78
3			.31	1.47	1.12	1.22	.53	1.45	1.35
4				1.37	1.03	1.16	0.37	1.32	1.19
5					0.85	0.66	1.39	0.72	0.57
6						0.81	1.03	0.88	0.85
7							1.20	0.73	0.79
8								1.32	1.23
9									.43
10									

alcoholic" seems to be construed rather negatively, as very like a "typical alcoholic", and bearing no particularly strong relationship to either the "actual" or "ideal self", though closer to the former than the latter.

In other words, at admission, Jake saw himself as very like a "non-benefitting alcoholic", not particularly like a "recovering alcoholic" - which itself is construed negatively - and very distant from the "ideal self" and an "average social drinker". He appears optimistic, in that the "ideal" and "future selves" are very close, but at present, it is possible that his future goal is one of "social drinker".

Table 4.32 presents correlations between the elements at admission, expressed as cosines.

This Table shows that no only are "future" and "ideal self" close in terms of element distance, but they also correlate perfectly: the relationship is very strong, so while Jake's self esteem is low at present, his view of the future is bright. "Ideal self" and "average social drinker" also have a strong positive relationship, as do"future self"and "average social drinker".

TABLE 4.32: Interelement Correlations (expressed as cosines)

Element	2	3	4	5	6	7	8	9	10
1	-.33	1.00	.92	-.82	-.44	-.59	.73	-.86	-.81
2		-.33	-.52	.12	.60	.37	-.53	.27	-.04
3			.92	-.82	-.44	-.59	.73	-.86	-.81
4				-.84	-.47	-.70	.84	-.79	-.64
5					.26	.58	-.75	-.58	.71
6						.09	-.34	.16	.03
7							-.68	.45	.26
8								-.66	-.62
9									.83
10									

Other relationships in this table support those of the preceding - "Distances between Elements" table, a strong positive correlation being associated with a small interelement distance, and a strong negative correlation with a large interelement distance.

Jake's Second Grid

TABLE 4.33: Jake's Second Grid

Constructs	Ideal self	Typic. alc	Future self	Av.soc.dr.	Social self	Recov. alc	Past self	Teetotaler	Actual self	Nonbenefitting alcoholic
	1	2	3	4	5	6	7	8	9	10
A	4	1	4	4	4	4	1	3	3	1
B	5	1	4	3	4	4	1	3	3	1
C	5	1	4	3	4	4	1	3	3	1
D	5	1	4	3	4	4	1	3	3	1
E	4	2	4	4	4	4	4	3	4	1
F	4	1	4	3	4	4	1	3	4	1
G	5	1	4	3	4	4	1	3	4	1
H	5	2	4	3	4	4	1	3	4	1
I	5	1	4	3	3	3	1	3	3	1
J	5	1	4	3	3	3	1	3	3	1

TABLE 4.34: Correlations between Constructs

	Constructs								
	B	C	D	E	F	G	H	I	J
A	.95	.95	.95	.71	.94	.93	.90	.59	.59
B		1.00	1.00	.67	.95	.98	.96	.68	.68
C			1.00	.67	.95	.98	.96	.68	.68
D				.68	.95	.98	.96	.68	.68
E					.71	.69	.65	.83	.83
F						.98	.95	.59	.59
G							.98	.66	.66
H								.59	.59
I									1.00
J									

Table 4.34 shows that interconstruct correlations are all high on second testing: i.e. constructs are tightly grouped, possibly suggesting the adoption of a rather simplistic, black and white way of construing.

The sums of squares and percentage variance accounted for by elementsare presented in Table 4.35.

TABLE 4.35: Sums of Squares and Percent Variance Accounted for by Each Element.

Element	Sum of Squares	As Percentage
1 Ideal self	31.6	19.1
2 Typical alcoholic	33.2	20.0
3 Future self	10.2	6.7
4 Av.social drinker	1.6	1.0
5 Social self	8.2	5.0
6 Recovering alcoholic	8.2	5.0
7 Past self	28.8	17.4
8 Teetotaler	0.2	0.1
9 Actual self	3.4	2.1
10 Nonbenefitting alc.	40.2	24.3

The elements - "ideal self", "typical alcoholic", "past self" and "nonbenefitting alcoholic", account for much of the variance, i.e. are construed most consistently at extreme ends of construct scales. Reference to the grid shows that a "typical alcoholic", a "nonbenefitting alcoholic" and "past self" are consistently construed very negatively, whereas the opposite is the case for the "ideal self". On the other hand, the "actual self", a "teetotaler" and an "average social drinker" are construed consistently at the centre of construct scales.

Table 4.36 presents distances between elements at discharge.

TABLE 4.36: Distances between Element Pairs

	Elements								
	2	3	4	5	6	7	8	9	10
1	1.86	0.44	0.89	0.59	0.59	1.65	0.92	0.79	1.94
2		1.47	1.07	1.38	1.38	0.79	0.96	1.17	0.23
3			0.46	0.23	0.23	1.31	0.52	0.40	1.56
4				0.40	0.40	0.98	0.23	0.33	1.17
5					0.00	1.33	0.47	0.33	1.47
6						1.33	0.47	0.33	1.47
7							0.92	1.11	0.86
8								0.33	1.04
9									1.28
10									

Jake's "actual self", at discharge, was seen as very like a "recovering alcoholic", an "average social drinker" and a "teetotaler", and moderately distant from a "nonbenefitting alcoholic". His "future self" was seen as considerably more like a "recovering alcoholic" than an "average social drinker"; similarly his "ideal self" was also seen as closer to a "recovering alcoholic" and bearing no particular relationship to either an "average social drinker" or a "teetotaler".

Table 4.37 presents interelement correlations at discharge.

TABLE 4.37: Interelement Correlations at Discharge (expressed as cosines)

	Elements								
	2	3	4	5	6	7	8	9	10
1	-.96	.97	.30	.83	.83	-.66	.16	.58	-.94
2		-.99	-.49	-.87	-.86	.63	-.10	-.68	-.98
3			.47	.90	.90	-.70	.15	.65	-.98
4				.53	.53	-.53	-.13	.22	-.51
5					1.00	-.91	.16	.72	-.87
6						-.91	.16	.72	-.87
7							-.39	-.65	.62
8								-.21	.08
9									.70
10									

At discharge, not only was the linear distance between "ideal self" and "average social drinker" greater than that between "ideal self" and "recovering alcoholic", but the correlation of the former was also lower than that of the latter. Furthermore, although the linear distance between the three pairs "actual self" and "average social drinker", "teetotaler" and "recovering alcoholic" is the same, in fact the correlation between "actual self" and "recovering alcoholic" is considerably stronger than that between the other pairs. In this sense, Jake's actual self at discharge is seen as most like a "recovering alcoholic", which in turn is evaluated positively.

In sum: At discharge, Jake's "ideal self" and "future self" were closest in terms of element distance, to the drinking role "recovering alcoholic", while his "actual self" also, in terms of element distance and correlation, bore the strongest relationship to a "recovering alcoholic".

Differences between Jake's Two Grids

The DELTA table presenting the differences between the means and variances of the constructs, taking the first occasion from the second, shows that changes in means have occurred for several of the constructs. The most marked changes in means are:

TABLE 4.38: Changes in Construct Means

Construct		Mean Change	Variation of diff.
CA	self respect - no self respect	-0.5	22.5
B	contented - miserable life	-0.60	22.4
D	respected - not respected	-0.60	16.4
H	easy going - straitlaced	0.90	26.9
I	loved - despised	0.50	16.5
J	stalwart - hopeless	-0.40	16.4

So, on occasion two, elements were described as more easygoing and loved by others than on occasion one, but less contented and respected.

The correlations between applications of constructs on each occasions are shown in Table 4.39.

TABLE 4.39: Correlations between Constructs

Construct	r^2	s.e.
CA	.36	.5
B	.43	.5
C	.39	.6
D	.58	.4
E	.48	.4
F	.35	.6
G	.05	.6
H	.00	.5
I	.46	.4
J	.42	.4

All constructs have changed considerably in their pattern of

application to the elements between occasions one and two: the most changes occurring for constructs easygoing-straitlaced and tolerant-intolerant.

The overall degree of correlation between the two grids is 0.35 suggesting that considerable change has occurred.

Table 4.40 shows changes referring to elements in terms of sums of squares of and percentage variance accounted for by differences between grids.

TABLE 4.40: Changes referring to the Elements

Element		Total	SS	As percentage
1	Ideal self	2.0	3.54	1.52
2	Typical alcoholic	-16.0	31.34	13.47
3	Future self	-5.0	3.34	1.44
4	Average social drinker	-9.0	14.34	6.17
5	Social self	20.0	53.47	23.10
6	Recovering alcoholic	13.0	30.34	13.04
7	Past self	-6.0	23.14	9.95
8	Teetotaler	-9.0	19.34	8.31
9	Actual self	18.0	42.14	18.12
10	Nonbenefitting alcoholic	-8.0	11.34	4.88

This table shows that the elements construed most differently at discharge are "myself as others see me" and "myself as I am". Reference to the grids shows that both of the elements have been upgraded between the first and second occasions. Jake described himself and the way that others saw him more positively on discharge. The evaluation of the drinking roles "typical alcoholic" and "recovering alcoholic" has also changed a moderate amount. Reference to both grids shows the former to have been downgraded and the latter upgraded on most constructs.

On the other hand, the evaluation of "ideal self", "future self" and "nonbenefitting alcoholic" has changed little between occasions.

In other words, then, the change in distance between "ideal self" and "recovering alcoholic" and "actual self" and "recovering alcoholic" between admission and discharge is largely due to an upgrading across constructs of both "actual self" and "recovering alcoholic".

Outcome

At discharge, when asked about his intentions as regards drinking Jake stated that he wished to abstain. He was moderately confident in his ability to achieve his goal, stating that he was not overly confident because he had "crashed" before, but the fact that this was his first time in therapy (as opposed to outpatient hospital programmes) did give him confidence. He felt he had gained a lot from the Queen Mary programme.

At the three month follow-up, Jake and his two referees reported abstinence for the entire period.

CHAPTER V

DISCUSSION OF THE RESULTS

a) The Perception of the Self and Drinking Roles at Admission and Discharge

At admission the self esteem of the sample, defined in terms of the distance between elements "actual" and "ideal self", was moderately, but not very, low, contrary to findings of other writers, and subjects, while identifying most closely with the "typical alcoholic" role, also saw themselves as moderately like a "recovering alcoholic". Moreover, subjects were optimistic about the future, seeing the "future self" as very like the "ideal self" and an "average social drinker", and as moderately like a "recovering alcoholic". The relatively positive state of mind of subjects a week after admission possibly reflects the fact that many had not only been abstinent for some time before admission but also had begun to reap the benefits of the programme during the preceding week.

Between admission and discharge, the majority of subjects came to identify even more closely with the socially approved drinking roles, "recovering alcoholic" and "average social drinker" and less with roles "nonbenefitting alcoholic" and "typical alcoholic", confirming predictions. Furthermore, as also predicted, self esteem increased. On the other hand, the "past self" came to be construed more negatively, as more like a "nonbenefitting alcoholic". Analyses suggested that "actual" and "social self" were the elements that accounted for the most

change - i.e. that were evaluated most differently at admission and discharge, while evaluation of "ideal self" and "future self" remained relatively stable. The pattern of results suggests that "actual" and "social self" were viewed more favourably at discharge than at admission. However, there was a large amount of variability in this pattern.

Drinking roles were also reconstrued to a certain extent. Of interest is the switch in the evaluation of "recovering alcoholic" and "average social drinker". An "average social drinker" was construed, at admission, as more like the "ideal self" and "future self" than was a "recovering alcoholic" but the reverse was the case at discharge, suggesting that the Alcoholics Anonymous philosophy, which forms the basis of the treatment programme, was, in fact, learnt by patients. However, the lack of a control group means that the source of such changes - treatment or time - cannot be identified with any certainty.

These results provide some support for Pennock and Poudrier's [1978] and Partington's [1970] assertions that the perception of several "self" and "alcoholic" roles provides the individual with a means of accepting his or her alcoholic problem without suffering a loss of self esteem. In the present study, then, this appears to have been achieved by "actual" and "future" self being identified with a "recovering alcoholic" and the "past" self with a "typical alcoholic" or a "nonbenefitting alcoholic." As the length of time since the last drink increases - as one becomes more removed in time, and in this instance, distance from one's undesirable behaviour - the distinction between "past self" and "actual self" undoubtedly becomes easier to make; the two roles become more separate. This may be the reason for the fact that the "past self" was construed more negatively at discharge than at admission. An interesting issue is whether, as patients return home after treatment and are again reminded of their past behaviour, this pattern changes.

In the present study, however, these roles were provided for the subject and the extent to which the same pattern of changes would have occurred spontaneously is unclear.

At discharge then, patients appeared to have integrated more tightly their perceptions of their"actual," "future"and"social self," all of which were seen as quite different from the"past self," and more like the "ideal self"than at admission. These roles were also identified more closely with a"recovering alcoholic"than at admission, but were also quite closely associated with an average social drinker. Given Heather et als [1975] suggestion that a"social drinker" for the alcoholic, is associated with respectability and normality, then it may be that in describing themselves as relatively like a"social drinker" subjects are indicating an increase in self respect rather than a desire to drink.

Re-analysis of the research hypotheses in terms of inter-element correlations, as opposed to inter-element distances, and the finding that the two analyses can yield important, and complementary, information suggests that a superior measures of 'similarity' and 'alikeness' is one that combines both,a goal for future research.

b) Preadmission 'Subject' variables, and Perception of the Self and Drinking Roles at Admission and Discharge

The aim of this section of the analysis was to explore patterns in the relationships between the above variables. The form of the analysis was limited by the small sample size: for example, had this been larger, then the matrices of correlations between interelement distances and external variables could have been reduced to its major factors by means of factor analysis.

Examination of the results of 24 subjects at admission suggested - though some of the relationships are weak - that a pattern did indeed exist, in that those in "less favourable" situations also identified less with socially approved drinking roles and more with socially disapproved roles. This general pattern applied to sociodemographic and social variables as well as drinking related variables, though these two categories are evidently not independent.

Thus, subjects who were female, divorced, living in less permanent accommodation, having less education, unemployed at admission and/or having jobs of lower prestige tended to have lower self esteem, and to see themselves in the present and future as less like a recovering alcoholic and more like a nonbenefitting alcoholic. Furthermore, results in relation to drinking variables suggested that the more severe the problem was reported to be prior to admission (in terms of the number of ounces of ethanol consumed, the number of alcohol-related behavioural and physiological symptoms reported, and the severity of the pattern) - the more negative the view of the self and also of the future.

Results of analysis of the relationship between external variables and interelement distances at discharge are not strictly comparable with those at admission, because of the premature departure of four subjects at various stages of the programme, leaving only 20 for the second interview. Three of the 'drop outs' were socially "less advantaged" in terms of being unemployed, of low occupational prestige and having a lower level of education. Thus, the amount of variance in the data was reduced by the departure of these subjects. However, the pattern of results remains generally the same for several of the social and alcohol-related variables, though many of the relationships are very weak: females, those of lower education, unemployed at admission, with more

severe drinking patterns prior to admission and less time since their last drink, tended to see themselves in the present and future in a more negative light than did other subjects: to identify less with socially approved drinking roles and more with socially disapproved roles. A notable exception is that those subjects who reported themselves as drinking more ethanol on a typical drinking day identified more closely with 'positive' drinking roles.

If this general pattern is replicated in larger but comparable samples, then several implications are apparent.

Firstly, given the literature cited in Chapter I which suggests that the socially disadvantaged and those with more severe drinking problems have a greater likelihood of alcoholic relapse than other clients, the accuracy of self perceptions is evidenced.

Secondly, these findings may provide an understanding of the mechanisms of relapse in socially disadvantaged individuals. Litman et al [1979, cited in Chapter I], propose that alcoholic relapse is a function of the situation, the availability of coping behaviour and the individual's self perception which determines whether coping behaviour will be initiated. In terms of the current research, if the individual perceives the severity of his drinking problem, the relative disadvantage of his social situation, and feels helpless to change this, he will be less likely to take appropriate action to avoid relapse. The self perception may, in fact, act as a self fulfilling prophecy, ensuring that relapse occurs.

Thirdly, this may also have implications for treatment in terms of helping the individual attain a greater feeling of control over the environment. This may be achieved by assigning a series of graded tasks in which success is ensured - a technique which is frequently used by

behaviour therapists [Goldfried and Davison, 1976], in order to encourage a feeling of self efficacy, an internal locus of control and, in this case also, identification with more "positive" drinking roles.

c) Relationships with Outcome

Of the twenty four subjects seen at admission, twenty three were traced at three months, of whom seven had relapsed (as defined by the rather stringent criteria presented in Chapter IV), and 16 were abstinent. This is proportionately higher than Abbott's [1979] finding of a 56 per cent abstinence rate at three months.

Though the present sample is very small, its relative composition in terms of social variables at admission was similar to that of Abbott's (see Chapter III).

It must be stressed that because numbers are small, conclusions beyond the present sample cannot be drawn, and findings must be regarded as suggesting potential areas for further research.

Terminating treatment prematurely was associated with relapse in three of the four instances. Several authors have found that among alcoholics, both in inpatient and outpatient groups, dropouts had a worse outcome than programme completers [Bowen and Androes, 1968; Tomsovic, 1970; in Baekeland and Lundwall, 1975].

The finding that, for the 23 subjects traced, less alcohol-related behavioural and physiological symptoms reported for the month preceding admission were associated with abstinence, is consistent with findings of other research, cited in Chapter I. Furthermore, the fact that a self rating of a less severe drinking problem at admission was the strongest

predictor of outcome amongst pre-admission variables is consistent with Abbott's finding, emphasising that this relatively ignored variable has as much potential as a predictor as many frequently studied "objective" variables.

The finding that, for 19 subjects, self concept at discharge was related to abstinence or relapse, was consistent with predictions: it seems that the four subjects who later relapsed on average saw themselves as less like their "ideal selves" - i.e. had lower self esteem - and identified less with the role "recovering alcoholic" and more with a "non-benefitting alcoholic" than did the sixteen subjects who remained abstinent.

These results are contrary to those of Heather et al [1975] who found that the alcoholics perception at discharge of drinking roles - rather than the self in relation to such roles, was predictive of drinking outcome.

The issues raised in Section (b) of this Chapter are again relevant; the present findings highlight the validity of subjects' self perceptions and point to their possible role in either failing to forestall relapse by preventing the implementation of coping strategies in problem situations, or bringing about relapse by acting as a self fulfilling prophecy.

d) The Repertory Grid

The present study suggests again that Repertory Grid technique is of considerable utility in assessing self and role perceptions of clients. Although the present sample is small, a consistent pattern of changes in self perception across therapy was demonstrated, and some relationships

found between self perceptions, as measured by grids, and social variables,and self perceptions and outcome. One may speculate that the reason for the utility and apparent validity of grid technique is the fact that it allows the client to define important concepts in his or her world and measures change in terms of these. The present findings suggest that further research using grid technique in this way is indeed warranted.

e) Areas for Future Research

This study is comprised of a series of analyses which are relatively independent because the small sample size prevented the use of appropriate multivariate statistical techniques which provide practical and theoretical links between variables.

Furthermore, as the number of subjects in each analysis is not constant, it is difficult to link sections and draw conclusions about the study as a whole.

Therefore, the current findings highlight several potentially fruitful areas for further investigation.

First and foremost there is a need for replication of results pertaining to both patterns of change and outcome, in a larger, but comparable subject population, and using multivariate statistical procedures. In this way, it would be possible to identify interactions of pre-admission variables, self and role perceptions and their changes, in predicting drinking outcome. The pre-admission variable of degree of cognitive impairment, omitted from the present study but shown by Abbott [1979] to be an important predictor of outcome, may also profitably be included in a future study. Abbott's findings, in fact, suggest that more cognitively impaired subjects are less likely to behave in accord with their expectations than are intact individuals.

Thus classification of the interrelationship of cognitive impairment, self and role perceptions and outcome is important.

If results of further research confirm present findings in demonstrating that the self and role perceptions of some alcoholics can predict relapse or abstinence, then a simple means of monitoring progress in therapy is at hand.

There is also a need to study in more detail the mechanisms of relapse, particularly in terms of ways in which self concept may influence behaviour; thereafter means of changing expectations and for self perception and/or behaviour may be investigated.

In conclusion, findings of the present study support those of Abbott in demonstrating that it is essential to take account of cognitive variables if an understanding of alcoholic recovery and relapse is to be gained. Furthermore, repertory grid technique has shown itself to be a useful means of investigating such variables, and one which should undoubtedly be employed in future research.

APPENDIX I

PERSONAL CONSTRUCT THEORY

a) Fundamental Postulate: A person's processes are psychologically channelized by the ways in which he anticipates events.

b) Construction Corollary: A person anticipates events by construing their replications.

c) Individuality Corollary: Persons differ from each other in their constructions of events.

d) Organisation Corollary: Each person characteristically evolves, for his convenience, in anticipating events,a construction system embracing ordinal relationships between constructs.

e) Dichotomy Corollary: A persons construction system is composed of a finite number of dichotomous constructs.

f) Choice Corollary: A person chooses for himself that alternative in a dichotomised construct through which he anticipates the greater possibility for extenion and definition of his system.

g) Range Corollary: A construct is convenient for the anticipation of a finite range of events only.

h) Experience Corollary: A person's construction system varies as he successively construes the replications of events.

i) Modulation Corollary: The variation in a person's construction system is limited by the permeability of the constructs within whose ranges of convenience the variants lie.

j) Fragmentation Corollary: A person may successively employ a variety of construction subsystems which are definitely incompatible with each other.

k) Commonality Corollary: To the extent that one person employs a construction of experience which is similar to that employed by another, his psychological processes are similar to those of another person.

l) Sociality Corollary: To the extent that one person construes the construction processes of another, he may play a role in a social process involving the other person.

Kelly, 1955 [in Fransella and Bannister, 1977]

CONFIDENTIAL

APPENDIX 2

BACKGROUND INFORMATION FORM

Tick ( ) or mark the scale where asked, or write in the answer to the question.

CODE : _____ SEX : _____

AGE : _____ DATE OF BIRTH : _____

1. At present you are :

single	( )
married	( )
married but living apart	( )
legally separated	( )
divorced	( )
widowed	( )
de facto (living with someone)	( )
other (please specify)	( )

2. Right now you live in :

a rented house	( )
your own home	( )
an ownership flat	( )
a rented flat	( )
a hostel (e.g. YMCA)	( )
private board	( )
a boarding house	( )
other (please specify)	( )

3. How long have you lived at your present address?

less than 4 weeks	( )
1 month - 3 months	( )
3 months - 12 months	( )
1 year - 2 years	( )
over 2 years	( )

4. How many places have you lived in during the past year? (including your present address)

one	( )
two	( )
three	( )
four	( )
more than four (state number)	( )

5. Did you have any education beyond Secondary School?
If so, how much?

Technical Institute	( )	.....yrs	.....mths
Correspondence School	( )	.....yrs	.....mths
Night School	( )	.....yrs	.....mths
Teachers Training College	( )	.....yrs	.....mths
University	( )	.....yrs	.....mths

Were you trained for a particular occupation?

If so what training did your have?

Describe the occupation briefly.

6. What is your present job (just before entering hospital)? What do you do, not just what your job is called (includes being a housewife).

7. How long have you had this job?

Less than 4 weeks	( )
1 month - 3 months	( )
3 months - 12 months	( )
1 year - 2 years	( )
Over 2 years (please state)	( )

8. How many jobs have you had in the past 6 months?

none (because unemployed)	( )
none (because retired, disabled)	( )
housewife full time	( )
one	( )
two	( )
three	( )
four	( )
more than four	( )

9. On a typical drinking day, how much alcohol do you usually consume?

Beer ..... jugs (or ..... bottles (give size .....))
(or ..... glasses (give size .....))
Wine .....bottles (or ..... glasses (give size .....))
Fortified wine (e.g. sherry, port) ..... bottles (give size .....))
or ..... glasses (give size .....))
Spirits ..... bottles (give size .....) or ..... nips)
State type of spirit usually consumed .....

10. For the following questions, tick the scale in the section which corresponds closest to your judgment.

How often in the month before entering Queen Mary Hospital did you:

Drink in the morning on awakening.

never sometimes quite often very often all the time
1 2 3 4 5

Drink at work or during daily activities:

never all the time
1 2 3 4 5

Drink alone

never all the time
1 2 3 4 5

Miss meals because of drinking.

never all the time
1 2 3 4 5

Get drunk.

never all the time
1 2 3 4 5

- 4 -

How often did you experience the following during the month before you entered the programme?

Shakes.

never	sometimes	quite often	very often	all the time
1	2	3	4	5

Memory lapses or blackouts.

never				all the time
1	2	3	4	5

Dry heaves or cold sweat.

never				all the time
1	2	3	4	5

Difficulty sleeping.

never				all the time
1	2	3	4	5

Hallucinations.

never				all the time
1	2	3	4	5

Severe hangover.

never				all the time
1	2	3	4	5

Feelings of nervousness or tension

never				all the time
1	2	3	4	5

Feelings of sadness.

never				all the time
1	2	3	4	5

- 5 -

During the month before entering the programme, you:

never drank ( )
drank only on special occasions ( )
drank socially ( )
had occasional binges ( )
drank daily ( )

How long since your last drink ..... weeks
..... days

Do you see your drinking as :

no problem at all	a little bit of a problem	a moderate problem	a severe problem	a very severe problem
1	2	3	4	5

How long has drinking been a problem for you? (If you consider it to be so)

..... years
..... months

At present, how much control do you feel you have over your drinking?

none at all	some	a moderate amount	a considerable amount	complete control
1	2	3	4	5

Not counting your present admission to Queen Mary Hospital, how many other admissions to hospitals or clinics have you had for alcohol problems?

no previous admissions ( )
one ( )
two ( )
three ( )
four ( )
more than four ( ) state how many ( )

How often did you carry out these activities during the month before entering this programme?

Spending time with close friends.

never	once or twice	a few times	quite often	very often
1	2	3	4	5

Playing sport.

never	once or twice	a few times	quite often	very often
1	2	3	4	5

Going to see a film, play or other cultural event.

never				very often
1	2	3	4	5

Watching sport.

never				very often
1	2	3	4	5

During the month prior to entering Queen Mary Hospital, you felt :

Relaxed and comfortable.

never	sometimes	quite often	very often	all the time
1	2	3	4	5

In control of your life.

never				all the time
1	2	3	4	5

That you knew where you wanted to go in life:

never				all the time
1	2	3	4	5

APPENDIX 3

University of Canterbury Christchurch 1 New Zealand
Department of Psychology

.....

Dear

I hope things have gone well for you since I saw you at Queen Mary Hospital, three months ago.

I would be grateful if you would complete the enclosed questionnaire as soon as is convenient for you, and send it back to me in the stamped addressed envelope provided. Information on how you have been since leaving hospital is crucial if I am to complete my research which provides ideas as to how treatment programmes for people with alcohol problems may be improved.

A write-up of the study will be available early next year, so please do not hesitate to contact me again if you wish to be informed of the results.

Thank you for your help. All the best for the future.

Yours sincerely,

Karen Salmon
Psychologist.

Encl:

CONFIDENTIAL

Questionnaire for ex-patients of Queen Mary Hospital, Hanmer

1980 SURVEY

The purpose of this questionnaire is to obtain a full and accurate picture of how you have managed since leaving Queen Mary Hospital.

This information is needed for me to complete my research into how the Queen Mary programme works, and how alcoholism treatment may be improved. The information you have already given me will be of even greater value if I am able to find out how it relates to your progress since leaving hospital.

All information you give me is strictly confidential - that is, between you and me. Your questionnaire will be coded when you return it and the front page, the only one to have your name on it, will be removed.

Please do not show this questionnaire to other people after you have filled it in.

Name : _____

Today's date: _____

INSTRUCTIONS: Code: _____

You have answered some of these questions in relation to your time BEFORE coming into Queen Mary Hospital. The questions this time refer to your time SINCE LEAVING.

Tick (✓) or mark the scale where asked, or write in the answer to the question.

1. At present you are :

single	( )
married	( )
married but living apart	( )
legally separated	( )
divorced	( )
widowed	( )
de facto (living with someone)	( )
other (please specify)	( )

2. Right now you live in :

a rented house	( )
your own home	( )
an ownership flat	( )
a rented flat	( )
a hostel (e.g. YMCA)	( )
private board	( )
a boarding house	( )
other (please specify)	( )

3. Is this the same place you lived in before coming to Queen Mary Hospital?

Yes .....
No .....

4. How many places have you lived in during the past three months (including your present address)?

one	( )
two	( )
three	( )
four	( )
more than four (state number)	( )

Code : _____

5. At present you are - employed ( )
unemployed ( )
housewife ( )

6. How many jobs have you have since leaving hospital?

none (because disabled, retired) ( )
none (because unemployed) ( )
housewife full time ( )
one ( )
two ( )
three ( )
more than three (state number) ( )

7. What is your present job? What do you do, not just what your job is called? (includes being a housewife).

_____

_____

The next group of questions concerns your use of alcohol since leaving hospital. Remember, the answers you give are strictly confidential between you and me.

8. After leaving Queen Mary Hospital you:

have not had an alcoholic drink ( )
have had an alcoholic drink ( )

9. If you have had a drink, after leaving Queen Mary Hospital, when did this occur?

the day of discharge ( )
within the first week ( )
within the second week ( )
within the third or fourth week ( )
within the second month ( )
within the third month ( )

10. Which category do you think best describes your drinking in the past month?

totally abstinent (i.e. not drinking at all) ( )
mostly abstinent : drank a little once or twice ( )
drank socially ( )
had occasional binges ( )
drank daily ( )

Code: _____

- 3 -

11. If you have been drinking during the past month, on an average day how much alcohol do you usually consume?

Beer ..... jugs (or ..... bottles (give size .....))
(or ..... glasses (give size .....))

Wine .....bottles (or ..... glasses (give size .....))

Fortified wine (e.g. sherry, port) ..... bottles (give size .....)
or ..... glasses (give size .....)

Spirits ..... bottles (give size .....) or ..... nips

State type of spirit usually consumed .....

12. For the following questions, tick the scale in the section which corresponds closest to your judgment.

How often in the past month did you:

Drink in the morning on awakening.

never	sometimes	quite often	very often	all the time
1	2	3	4	5

Drink at work or during daily activities:

never				all the time
1	2	3	4	5

Drink alone

never				all the time
1	2	3	4	5

Miss meals because of drinking.

never				all the time
1	2	3	4	5

Get drunk.

never				all the time
1	2	3	4	5

Code: _____

13. Do you see your drinking as:

no problem at all	a little bit of a problem	a moderate problem	a severe problem	a very severe problem
1	2	3	4	5

14. How often did you carry out these activities in the past month?

spending time with close friends:

never	once or twice	a few times	quite often	very often
1	2	3	4	5

Playing sport:

never				very often
1	2	3	4	5

Going to see a film, play:

never				very often
1	2	3	4	5

Watching sport:

never				very often
1	2	3	4	5

Going to parties:

never				very often
1	2	3	4	5

15. Over the past month you felt:

Relaxed and comfortable

never	sometimes	quite often	very often	all the time
1	2	3	4	5

In control of your life

never				all the time
1	2	3	4	5

That you knew where you wanted to go in life

never				all the time
1	2	3	4	5

Code: _____

16. Have you attended any support group (e.g. AA) or received any counselling and therapy since leaving Hanmer? (e.g. NSAD Alcohol Assessment Centre, admission to another treatment programme).

Yes _____

No _____

If yes please specify:

_____

_____

If you entered another treatment programme, state the dates you entered and left treatment.

_____

_____

University of Canterbury Christchurch 1 New Zealand
Department of Psychology

.....

Dear

During 1980, I have been conducting research at Queen Mary Hospital, Hanmer Springs. I am interested in the effects of treatment and how future treatment can be improved. Such information is very important if advances are to be made in helping people with alcohol problems.

You have been contacted because, upon leaving hospital, , a previous patient gave me your name as a trustworthy and concerned person who knows him/her and who could give an honest account of his/her present drinking. By filling out the enclosed questionnaire, you will be providing information that is essential for the completion of the research project. A stamped addressed envelope is enclosed for your convenience in returning the completed questionnaire.

A write-up of the study will be available early next year. In the meantime, do not hesitate to contact me if there is anything you would like to know.

Thank you for your time and effort.

Yours sincerely,

Karen Salmon
Psychologist

Encl:

CONFIDENTIAL

Follow-up Questionnaire to Referees

Check with a (✓) where appropriate, or fill in the required information.

Name of patient: _____

Discharged from Q.M.H.

Date questionnaire completed: _____

Status of reporter: (e.g. wife, parent, friend, doctor, etc.)

_____

1. The ex-patient present lives:

   at home with others/family ( )

   at home alone ( )

   flat ( )

   boarding house ( )

   institution (specify)

   _____) ( )

2. The ex-patient has:

   a job ( )

   no job ( )

   if in work, the job has been held

   for _____ weeks/months.

3. Since discharge, the patient has had an alcoholic drink

   Yes ( )

   No ( )

P.T.O.

4. Amount of alcohol intake (if any):

beer (quart bottles per week) _____

spirits (bottles per week) _____

wine (bottles per week) _____

other (specify amount per week) _____

If the quantity is unknown, but the patient is known to be drinking, is it:

slight ( )

heavy ( )

incapacitating for work ( )

5. To the best of your knowledge, when after discharge from Queen Mary did the patient start drinking:

1 day ( )

within first week ( )

within second week ( )

within third or fourth week ( )

within second month ( )

within third month ( )

has not had a drink at all ( )

Just fill in as much of the above as you can. Most important is whether or not the patient is presently drinking. The next most important is when the patient started.

If you have any other comments on the patient's progress which you feel are relevant, you may note them below:

Many thanks for your effort and co-operation.

APPENDIX 4

University of Canterbury Christchurch 1 New Zealand
Department of Psychology

.....

Dear

During 1980, I have been conducting research at Queen Mary Hospital, Hanmer Springs. I am interested in the effects of treatment and how future treatment can be improved. Such information is very important if advances are to be made in helping people with alcohol problems.

You have been contacted because, upon leaving hospital, , a previous patient gave me your name as a trustworthy and concerned person who knows him/her and who could give an honest account of his/her present drinking. By filling out the enclosed questionnaire, you will be providing information that is essential for the completion of the research project. A stamped addressed envelope is enclosed for your convenience in returning the completed questionnaire.

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Yours sincerely,

Karen Salmon
Psychologist

Encl:

CONFIDENTIAL

Follow-up Questionnaire to Referees

Check with a (✓) where appropriate, or fill in the required information.

Name of patient: _____

Discharged from Q.M.H.

Date questionnaire completed: _____

Status of reporter: (e.g. wife, parent, friend, doctor, etc.)

_____

1. The ex-patient present lives:

   at home with others/family ( )

   at home alone ( )

   flat ( )

   boarding house ( )

   institution (specify)

   _____) ( )

2. The ex-patient has:

   a job ( )

   no job ( )

   if in work, the job has been held

   for _____ weeks/months.

3. Since discharge, the patient has had an alcoholic drink

   Yes ( )

   No ( )

P.T.O.

4. Amount of alcohol intake (if any):

beer (quart bottles per week) _____

spirits (bottles per week) _____

wine (bottles per week) _____

other (specify amount per week) _____

If the quantity is unknown, but the patient is known to be drinking, is it:

slight ( )

heavy ( )

incapacitating for work ( )

5. To the best of your knowledge, when after discharge from Queen Mary did the patient start drinking:

1 day ( )

within first week ( )

within second week ( )

within third or fourth week ( )

within second month ( )

within third month ( )

has not had a drink at all ( )

Just fill in as much of the above as you can. Most important is whether or not the patient is presently drinking. The next most important is when the patient started.

If you have any other comments on the patient's progress which you feel are relevant, you may note them below:

Many thanks for your effort and co-operation.

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